JP

BRITAIN = B
FRANCE = F
GERMANY = G
USA = U
ALL = A

PROJECT SCHEDULE (Q2 - 1997)

INPUT

* Corporate Week ** Ending date *** Working Days

Activity	Name	Days	APRIL				MAY						JUNE			
			14* 4/4** BFG(4)*** U(5)***	15 4/11 A (5)	16 4/18 A (5)	17 4/25 A (5)	18 5/2 BUG(5) F(3) G(4)	19 5/9 BFG(4) U (5)	20 5/16 A (5)	21 5/23 BU(5) FG(4)	22 5/30 BGU(4) F(5)	23 6/6 A (5)	24 6/13 A (5)	25 6/20 A (5)	26 6/27 A (5)
Create draft questionnaire		1.5													
Kick-off Meeting		1.5													
Interviewer training		2.5													
User Interviews		10													50
Tabulate data		1													
Preliminary Report		3													
Final Report		3													
Presentation & Wrap-Up		2.5													
TOTAL PLAN															
TOTAL SPENT															

Proj. Code: _____

Proj. Manager: __Wilson Haddow__

CPR 130/03 11/96 (R)

Activity/Project Name: __IBM S/390 Internet Analysis__   Prepared By: __W. Haddow__

Date: __5/14/97__

Confidential - INPUT

BRITAIN = B
FRANCE = F
GERMANY = G
USA = U
ALL = A

PROJECT SCHEDULE (Q3 - 1997)

* Corporate Week ** Ending date *** Working Days

Activity	Name	Days	JULY				AUGUST					SEPTEMBER			
			27* 7/4** BFG(5)*** U(4)***	28 7/11 A (5)	29 7/18 F(4) BGU (5)	30 7/25 A (5)	31 8/1 A(5)	32 8/8 A (5)	33 8/15 F(4) BGU (5)	34 8/22 A(5)	35 8/29 B(4) FGU(5)	36 9/5 BFG(5) U (4)	37 9/12 A (5)	38 9/19 A (5)	39 9/26 A(5)
Create Draft Questionaire															
Kickoff mtg															
Interviewer training															
User Interviews			—												
Tabulate Data			—	—											
Preliminary Report					—										
Final Report							—								
Presentation & Wrap up							—								
TOTAL PLAN															
TOTAL SPENT															

Proj. Code: __YN__

Proj. Manager: __William HADDON__

Activity/Project Name: __IBM S/390 Interad__

Date: _____

Prepared By: __W. Haddon__

PLG 300/03 04/97 (R)

CONFIDENTIAL - INPUT

International Business Machines

Purchase order

PO number/date
2000283560   05/09/1997

Vendor: 9313

INPUT
1881 LANDINGS DR
MOUNTAIN VIEW, CA 94043

Contact person/Telephone
Dana L. Schwartz 914-433-5992
Fax 914-433-7506

Please deliver to:
IBM Corporation
Purchasing Mail Station P931
522 South Road
Poughkeepsie, NY 12601

Delivery date   04/07/1997

F.O.B.:   SHIPPING POINT-COLLECT
Payment Terms: Within 30 days due net

Currency USD

By filling this purchase order, you the vendor, agree to comply with
IBM's Standard Terms and Conditions dated November 1991. If you have
not received a copy of these IBM Standard Terms and Conditions, or if
you disagree with any of them, please contact your IBM representative
prior to fulfilling this purchase order.

THIS PURCHASE ORDER IS IN ACCORDANCE WITH THE IBM/INPUT CONSULTING
AGREEMENT # 12780, THE STATEMENT OF WORK # 12780-001, AND THE AECI
AGREEMENT # 12781, WHICH IS INCOPORATED HEREIN AND MADE A PART HEREOF
BY REFERENCE.

Item	Material		Description		
	Order qty.	Unit		Price per unit	Net value
00001			BRAND MANAGEMENT NETWORK COMPUTING SERV.		
	1 Unitless			46,000.00	46,000.00
Req tracking nbr G7VFHR-001					

RESEARCH SERVICES AND ALL DELIVERABLES ASSOICATED WITH THE TELEPHONE
INTERVIEWS.

BRAND MANAGEMENT NETWORK COMPUTING CUSTOMER REQUIRMENTS
Do not bill NY tax, NY Direct Payment Permit # 13-087198502
  Attention: DOMBROSKI
  Unloading Point: E47A 005 03 392-2

International Business Machines

Purchase order

INPUT
1881 LANDINGS DR
MOUNTAIN VIEW, CA 94043

Item	Material		Description		
	Order qty.	Unit		Price per unit	Net value
00002			TRAVEL AND ADMINSTRATIVE FEES		
	1 Unitless			4,600.00	4,600.00
Req tracking nbr G7VFHR-002					

TRAVEL AND ADMINSTRATIVE FEES

BRAND MANAGEMENT NETWORK COMPUTING CUSTOMER REQUIREMENTS
Do not bill NY tax, NY Direct Payment Permit # 13-087198502
  Attention: DOMBROSKI
  Unloading Point: E47A 005 03 392-2

Total net value excl. tax USD   50,600.00
==

International Business Machines

Purchase order

INPUT
1881 LANDINGS DR
MOUNTAIN VIEW, CA 94043

1. Indicate complete purchase order number, item number, quantity, and IBM part or tool number, if any, in all invoices, shipping containers, packing lists, and correspondence.
2. Furnish IBM with the item(s) indicated above in accordance with all conditions specified.
3. Clearly mark carton containing Packing Slip.
4. Unless otherwise specified on the PO, send paper invoices to:
    IBM Corporation
    Accounts Payable
    PO Box 9005
    Endicott, NY 13761-9005
5. Direct all inquiries to the contact person listed above. Contact the buyer immediately if exception is taken to price, delivery date, terms and conditions, etc.
6. Transportation Guidelines:
    1. Ship via UPS collect for shipments up to 70 pounds per shipment and within size limitations. UPS Consignee billing should be used where available.
    2. If the carrier is not designated on the purchase order, contact 1-888-500-1242 for the proper routing instructions.
    3. Carrier invoices are to be sent to:
        IBM Corporation
        C/O STI
        PO Box 4093
        Iselin, NJ 08830-3179
    4. Alternative carrier routing can only be authorized by the IBM buyer or IBM Traffic. IBM reserves the right to charge back all additional transportation expenses incurred as a result of carrier misrouting or incorrect payment terms.
    5. Unauthorized transportation charges on invoices will be deducted by Accounts Payable.

18. NEW YORK LAW

This Agreement shall be construed, and the legal relations between the parties hereto shall be determined, in accordance with the laws of the State of New York.

19. GENERAL PROVISIONS

Any terms of this Agreement, such as those contained in the sections entitled "WARRANTIES," "INDEMNIFICATION," "LIMITATION OF LIABILITY," and "RIGHTS IN DATA," which by their nature extend beyond its expiration or termination will remain in effect until fulfilled and will apply to respective successors and assignees of the parties. You may not assign, delegate or subcontract this Agreement without the prior written approval of IBM. Any act in contravention of the foregoing shall be void. Failure by either party to enforce any provisions of this Agreement shall not be deemed a waiver of such provision, or any subsequent breach thereof. In the event that any provision of this Agreement is held to be invalid or unenforceable, the remaining provisions of this Agreement shall remain in full force and effect.

20. SOLE AGREEMENT

This Agreement shall supersede all prior communications, agreements and understandings, oral or written, between the parties regarding the subject matter hereof and thereof. Only a written agreement signed by authorized representatives of both parties can modify this Agreement. Any reproduction of this Agreement made by reliable means (for example, photocopy or facsimile) will be considered an original.

If the provisions stated herein are understood and acceptable to you, please sign and date all copies of this Agreement and return them to the attention of the IBM Contract Coordinator as indicated in the section entitled "IBM COORDINATORS".

ACCEPTED AND AGREED:

INPUT

BY: _I. m. Wilson Heddon._
    Authorized Signature

Print Name: _I. M. Wilson Heddon_

TITLE: _Vice President_

DATE: _5/8/97_

Very truly yours,

INTERNATIONAL BUSINESS
MACHINES CORPORATION

BY: _Russell D. Munson_
    Authorized Signature

Print Name: _Russell D. Munson_

TITLE: _Purchasing_

DATE: _5/9/97_

Statement of Work No. 12780-001

Input shall use its best efforts to coordinate the furnishing of services to IBM with the appropriate S/390 representative to allow for IBM's input to be incorporated into all Deliverables.

9.0 DELIVERABLES/SCHEDULE

Input shall provide IBM with the following Deliverables on or about the dates specified:

```
Project Start          on or about May 15, 1997
Draft questionnaire    on or about May 22, 1997
50 to 100 Interviews,  on or about June 15, 1997
 recorded on audiotape where possible
Survey Data Crosstabs  on or about June 30, 1997
Preliminary report     on or about July 8, 1997
Final Report           on or about July 15, 1997
```

10.0 ACCEPTANCE CRITERIA

All Deliverables Items furnished under this SOW shall be subject to IBM's final review and acceptance. The terms of Section 3.0 of the Agreement shall apply to IBM's acceptance.

11.0 OTHER REQUIREMENTS/SPECIAL TERMS

The services performed and Deliverable Items delivered under the Agreement shall be used solely for the purposes intended by this SOW and may not be used by Input for any other purpose including other IBM functions, without the prior written approval of the IBM Coordinator. See also Section 4.0 Confidential Information.

12.0 APPROVAL SIGNATURES

Accepted and Agreed to:

INTERNATIONAL BUSINESS MACHINES CORPORATION

BY: _____

Russ Munson, Contract Administrator

Date: 5/9/97

Input

BY: _____

Date: 5/8/97

                    END OF STATEMENT OF WORK

This Agreement, including its Supplements (if any), is the complete and exclusive agreement our disclosure of information.

Agreed to:

INPUT

By: _I— rth kell._

Name: _I.—, Wmson HADDow_

Date: _5/8/9Z_

Agreed to:

International Business Machines Corporation

By: _Russell Johnson_

Name: _Russell Dickinson_

Date: _5/9/97_

IBM

International Business Machines Corporation

522 South Road
Poughkeepsie, NY 12601

May 12, 1997

INPUT
1881 LANDINGS DR
MOUNTAIN VIEW, CA 94043

Subject: Agreement #12780

This letter, when signed by both parties, shall constitute an Agreement between International Business Machines Corporation (IBM) and INPUT (you) under which you, as an independent contractor, will furnish certain services and Deliverable Items to IBM.

1. **SCOPE OF WORK**

    You will furnish to IBM the services and Deliverable Items set forth in Attachment A (Scope of Work). Additional scopes of work may be added only when reduced to writing, referencing this Agreement, and signed by IBM and you. Attachment A and such additional scopes of work, if any, are hereinafter referred to as "SOW." When requested to do so by the IBM Technical Coordinator, your services may include you collaborating with, or assisting, IBM personnel and/or others retained by IBM or for whom IBM is performing services. You shall make no commitments on behalf of IBM. This Agreement is nonexclusive in nature and does not in any manner establish an exclusive arrangement between the parties. In no respect shall this Agreement be construed to establish or grant rights to you as IBM's distributor, dealer, reseller, sales representative or agent of any kind.

2. **TERM AND TERMINATION**

    The term of this Agreement shall commence on the date that the last party signs it, and shall continue in effect until either party terminates the Agreement with or without cause by providing one month's prior written notice to the other party, provided, however, that this Agreement shall remain in effect regarding any SOW already in effect unless such SOW is terminated as provided for herein or until performance is completed to IBM's satisfaction.

    IBM may terminate any SOW, or any portions thereof, without cause by written notice to you. Upon receipt of such notice, you must immediately stop all activities associated with the terminated SOW. You will be paid for the work performed in accordance with this Agreement and the effected SOW(s) until the effective date of termination after IBM receives and accepts the services and Deliverable Items specified in the notice. Such payment shall constitute IBM's entire liability, and in no event shall such payment exceed the amount due for complete performance of the effected SOW. IBM may terminate any SOW, or any portions thereof, with cause by providing you written notice.

    Payments that may have been made to you in advance, which are in excess of such amounts due for satisfactory services actually performed, shall be returned by you to IBM within 30 days following the termination or expiration date, to the address listed below:

        IBM Corporation
        Accounts Payable Center
        P. O. Box 9005
        1701 North Street
        Endicott, NY 13761-9005

Any IBM property, including hardware or software, in your possession at the termination or expiration of this Agreement which you received from IBM without obligation of payment, shall be returned to IBM immediately upon such termination or expiration.

3. **COMPENSATION**

IBM will pay you for the services and Deliverable Items you furnish to IBM in accordance with the provisions of this Agreement and the applicable SOW. You shall be responsible for the payment of all taxes associated with the provision of your services and Deliverable Items to IBM under this Agreement. There are no express or implied rights by you to receive commissions, royalties, finders fees or other considerations from IBM.

IBM shall reimburse you for reasonable and actual business travel expenses, provided that all such travel is approved in advance by IBM, in writing, and such expenses are incurred in conjunction with work as requested in the applicable SOW. Such reimbursement shall be in accordance with Attachment B (Travel Expense Guidelines).

You will remain solely liable for payment to all third parties with whom you deal in carrying out the terms of this Agreement. You agree to incorporate in order forms and contracts with such third parties a statement that the third party shall look solely to you for payment and to no other party.

4. **INVOICES TO IBM**

You must submit invoices to IBM for the services and Deliverable Items furnished. IBM shall make payment to you within thirty (30) days after receipt of an acceptable invoice accompanied by supporting documentation, as required by IBM, and provided that such services and Deliverable Items referenced in said invoice have been accepted by IBM in accordance with the provisions of this Agreement. All invoices must describe the services and Deliverable Items furnished to IBM and reference the appropriate purchase order number, issued under separate cover. All invoices shall be addressed to IBM Corporation and forwarded to:

> IBM Corporation
> Accounts Payable Center
> P. O. Box 9005
> 1701 North Street
> Endicott, NY 13761-9005

A copy of all invoices will be mailed to the IBM Technical Coordinator.

5. **CONFIDENTIAL INFORMATION**

If any confidential information is to be disclosed by IBM or you, such disclosure shall be under the terms of the Agreement for Exchange of Confidential Information (AECI) incorporated herein by reference and made part of this Agreement.

6. **RIGHTS IN DATA**

All of the Deliverable Items described in the SOW(s) and any other items you prepare for or submit to IBM under this Agreement (collectively referred to herein as "Deliverable Items") shall belong exclusively to IBM and shall be deemed to be works made for hire. To the extent that any of the Deliverable Items may not, by operation of law, be works made for hire, you hereby assign to IBM ownership of copyright in such Deliverable Items. IBM shall have the right to obtain and hold in its own name copyrights, registrations and similar protection which may be available in such Deliverable Items. You agree to give IBM or its designees all assistance required to perfect such rights. To the extent that any of your preexisting materials are contained in the Deliverable Items, you grant to IBM an irrevocable, paid-up, nonexclusive, worldwide, royalty-free license to: 1) use, execute, reproduce, display, perform, distribute (internally and externally) copies of, and prepare derivative works based upon, such preexisting materials and derivative works thereof.

and 2) authorize others to do any, some or all of the foregoing. You will obtain IBM's prior written approval before incorporating any of your preexisting materials in the Deliverable Items.

Should IBM and you mutually agree that there is a requirement to include in the Deliverable Items the materials of a third party, you agree to obtain all necessary rights and/or licenses from such third party at your expense. The terms and conditions of such rights and licenses are subject to IBM's approval and must, at a minimum, enable IBM to: 1) use, execute, reproduce, display, perform, distribute (internally and externally) copies of, and prepare derivative works based upon, such materials of a third party and derivative works thereof; and 2) authorize others to do any, some or all of the foregoing. Upon IBM's request, you shall deliver to IBM a complete copy of every agreement, license or other arrangement from which you derive your authority to grant IBM the rights and licenses granted under this Agreement. You will obtain IBM's prior written approval before incorporating the materials of a third party in the Deliverable Items.

No license or right is granted to you, either expressly or by implication, estoppel or otherwise, to publish, reproduce, prepare derivative works based upon, distribute copies of, publicly display, or perform any of such Deliverable Items, except your preexisting materials, either during or after the term of this Agreement. At the time of delivery or at such other times as IBM may request, IBM may require you to provide IBM with a certificate of originality in a form acceptable to IBM with respect to Deliverable Items. Nothing contained in this Agreement shall be construed as obligating IBM to market, publish or announce the Deliverable Items or any parts thereof, or any product or information based upon such Deliverable Items or parts thereof.

7. **RECORDS**

You shall maintain complete and accurate accounting records (including, but not limited to, payroll records, job cards, attendance cards and job summaries), in a form in accordance with sound accounting practices, to substantiate your charges under this Agreement for a period of two (2) years from the date of final payment hereunder, and IBM shall have access to such accounting records for purposes of audit during normal business hours during the period in which you are required to maintain such records as provided for herein.

8. **YOUR AGREEMENT WITH EMPLOYEES**

You will have an appropriate agreement with each of your employees, and all others whose services you may secure to perform hereunder, sufficient to enable you to comply with all of the terms of this Agreement, including, but not limited to, the sections entitled "CONFIDENTIAL INFORMATION" and "RIGHTS IN DATA." You shall cause such employees, and all others whose services you secure to perform hereunder, to execute and deliver such further certificates, acknowledgements, waivers and assignments as IBM may deem appropriate.

9. **YOUR EMPLOYEES**

You agree to take appropriate preventive steps, before the assignment of any of your employees to perform work under this Agreement, that you reasonably believe will ensure that your employees, and your agents' and subcontractors' employees at any level, will not engage in inappropriate conduct while on IBM premises. Inappropriate conduct shall include, but not be limited to: 1) being under the influence of, or affected by, alcohol, illegal drugs or controlled substances; 2) the manufacture, use, distribution, sale or possession of alcohol, illegal drugs or any other controlled substance except for approved medical purposes; 3) the possession of a weapon of any sort; and 4) harassment, threats or violent behavior. Violation of this provision may result in termination of this Agreement and any other remedy available to IBM at law or equity. You agree to provide IBM with information regarding the preventive steps you employ upon request.

Personnel you supply, including your employees, agents and subcontractors, will be deemed your employees and will not for any purpose be considered employees or agents of IBM. You assume full responsibility for the actions of such personnel while performing services pursuant to this Agreement. You shall be solely responsible for their supervision, daily direction and control.

payment of salary (including withholding of income taxes and social security), workers' compensation, disability benefits and the like.

You shall immediately, at IBM's request and sole discretion, remove any specified employee(s), subcontractor(s) and/or agent(s) of yours from IBM's premises, and agree that they will not be reassigned to any IBM premises under this Agreement. You shall inform IBM prior to assigning any former IBM employees to perform work under this Agreement, whether or not on IBM premises. IBM reserves the right to approve or disapprove the assignment.

Nothing contained in this Agreement shall be construed as granting to you or any of your employees, agents or subcontractors rights under any IBM employee benefit plans.

10. **WARRANTIES**

You represent and warrant the originality of the Deliverable Items under this Agreement, and that no portion of such Deliverable Items, or their use or distribution, violates or is protected by any copyright or other intellectual property right of any third party, except as provided in the third paragraph of the "RIGHTS IN DATA" section to this Agreement. You represent and warrant that you are under no obligation or restriction, nor will you assume any such obligation or restriction, which would in any way interfere or be inconsistent with, or present a conflict of interest concerning, the services and Deliverable Items to be furnished by you under this Agreement.

You represent and warrant that any information you disclose to IBM is not confidential or proprietary to you or to any third party.

Time is of the essence in your furnishing of services and Deliverable Items to IBM. You shall apply best efforts in providing your services and Deliverable Items to IBM. You shall provide your services and Deliverable Items in a professional and workmanlike manner.

11. **COMPLIANCE WITH LAWS**

You agree to comply, and do all the things necessary for IBM to comply, with all applicable foreign, international, federal, state and local laws, statutes, rules, administrative orders, regulations and ordinances, as they relate to your services and Deliverable Items provided to IBM under this Agreement.

12. **LIMITATION OF LIABILITY**

IBM's entire liability and your exclusive remedy are set forth in this section.

Under no circumstances shall IBM be liable to you, your successors, heirs or assigns for any lost revenue, lost profits or other incidental or consequential damages, even if IBM has been advised of the possibility of such damages. In addition, in no event will IBM be liable for any damages claimed by you based on any third party claim or for damages caused by your failure to perform your responsibilities. In no event, except for claims by you for bodily injury or damage to real property or tangible personal property for which IBM is legally liable, will IBM be liable to you, your successors, heirs or assigns for actual damages in excess of the amount due you for complete performance pursuant to this Agreement, less any amounts already paid to you by IBM. Except for actions brought to enforce the provisions of the sections entitled "WARRANTIES," "RIGHTS IN DATA," "INDEMNIFICATION," and "CONFIDENTIAL INFORMATION," no actions, regardless of form, arising out of or in connection with this Agreement may be brought by either party more than two (2) years after the cause of such actions has occurred. The aforesaid limitations will apply, regardless of the form of action, whether in contract or in tort, including negligence.

13. **ACCEPTANCE**

Services and Deliverable Items you furnish under this Agreement shall be subject to final review and acceptance by IBM based upon this Agreement and its attachments, and final payment shall

not be due before such acceptance. Any deficiencies found during such review shall be corrected by you and subject to repeat review before acceptance of the work. Any claims which IBM may have pursuant to this Agreement shall survive inspection, acceptance and payment in full.

Payments otherwise due from IBM to you for your performance under this Agreement may be withheld by IBM if (1) you deliver unsatisfactory work and do not remedy such work within a reasonable period of time, (2) you fail to meet the delivery schedule established by the IBM Technical Coordinator, or (3) you fail to provide your services in accordance with this Agreement.

14. IBM COORDINATORS

The IBM Technical Coordinator will be set forth in each SOW. The IBM Technical Coordinator, or his/her designee, will be responsible for providing IBM's requirements and to determine the acceptability, adequacy and fitness of the services and Deliverable Items you furnish under this Agreement.

Russ Munson will be the IBM Contract Coordinator. You shall direct all proposed modifications to this Agreement to the IBM Contract Coordinator at 522 South Road M/S P931, Poughkeepsie, NY 12601. His telephone number is (914)433-7643

15. INSURANCE

You shall maintain comprehensive general and vehicular liability insurance coverage for bodily injury (including death) and property damage caused by or arising out of acts or omissions of you and your employees. Certificates of such insurance, with a minimum of One Million Dollars ($1,000,000.00) of coverage and naming IBM as an additional insured, shall be provided to IBM at IBM's request and such insurance shall be maintained for as long as this Agreement remains in effect. In no event shall such insurance be cancelled without prior written notice to IBM.

16. INDEMNIFICATION

You will, at your expense, indemnify, defend and save IBM harmless against any claims (including costs of litigation and attorneys' fees) resulting from:

a. a breach or alleged breach of your warranties or representations under this Agreement;

b. any alleged or actual infringement by any Deliverable Items, or any preexisting or third party materials from which any Deliverable Items are prepared, of a patent, copyright, trademark or other intellectual property right, privacy or similar right of any third party, in any country in the world; or

c. your failure to comply with any governmental law, statute, ordinance, administrative order, rule or regulation.

You agree to indemnify, defend and save IBM harmless from and against any and all claims (including costs of litigation and attorneys' fees) for personal injury or death to persons and damage to property (including IBM's property) arising out of or in connection with or resulting from operations under this Agreement to the extent that such injuries, deaths or damage are caused by you or any of your agents or subcontractors or by anyone directly or indirectly employed by you or by them.

17. IBM TRADEMARKS

Notwithstanding any other provision of this Agreement, you are not granted hereunder any rights to use any of IBM's trademarks or trade names, or to refer to this Agreement or the services or Deliverable Items furnished hereunder, directly or indirectly, in connection with any product, service, promotion or publication, without the prior written approval of IBM.

18. **NEW YORK LAW**

This Agreement shall be construed, and the legal relations between the parties hereto shall be determined, in accordance with the laws of the State of New York.

19. **GENERAL PROVISIONS**

Any terms of this Agreement, such as those contained in the sections entitled "WARRANTIES," "INDEMNIFICATION," "LIMITATION OF LIABILITY," and "RIGHTS IN DATA," which by their nature extend beyond its expiration or termination will remain in effect until fulfilled and will apply to respective successors and assignees of the parties. You may not assign, delegate or subcontract this Agreement without the prior written approval of IBM. Any act in contravention of the foregoing shall be void. Failure by either party to enforce any provisions of this Agreement shall not be deemed a waiver of such provision, or any subsequent breach thereof. In the event that any provision of this Agreement is held to be invalid or unenforceable, the remaining provisions of this Agreement shall remain in full force and effect.

20. **SOLE AGREEMENT**

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If the provisions stated herein are understood and acceptable to you, please sign and date all copies of this Agreement and return them to the attention of the IBM Contract Coordinator as indicated in the section entitled "IBM COORDINATORS".

Very truly yours,

ACCEPTED AND AGREED:

INPUT

BY: ~T~~.~~i~ ~~Lhll.~~
Authorized Signature

Print Name: J . M . \n/ILSON HADDOW

TITLE: Vice PResident

DATE: 5/8/97

INTERNATIONAL BUSINESS
MACHINES CORPORATION

BY: _____
Authorized Signature

Print Name: _____

TITLE: _____

DATE: _____

ATTACHMENT B
TRAVEL EXPENSE GUIDELINES

IBM shall reimburse you in accordance with the following guidelines for reasonable & actual travel and living expenses authorized in advance by IBM and incurred solely in connection with services furnished under this Agreement. Your employees should exercise reasonable cost effectiveness when incurring these expenses.

THIRD-PARTY TRAVEL

Third parties (i.e., customers, consultants, contractors, etc.) may travel as part of their relationship with IBM. To reduce associated costs, IBM has negotiated with the major airlines to extend IBM-negotiated rates to third parties whose travel expenses are reimbursed by IBM. To obtain the discounts, one of the IBM agencies must be used. For regular business travel, the outside telephone number (ten digits) of the sponsoring IBM employee must be provided to the American Express Representative at 1-800-544-3915. For group travel (education, meetings, etc.), the course code or meeting program number must be provided to the BTI Americans (formerly named IVI Travel) representative at 1-800-688-6700.

Most hotels with the IBM-negotiated rates extend these rates to third parties whose expenses are reimbursed by IBM. Exceptions are clearly indicated in the IBM Hotel Guide. Hotels may require identification from anyone requesting an IBM-negotiated rate and have agreed to since it includes the remark "This traveler is eligible for IBM rates and is expense-reimbursed by IBM."

For auto rentals under our Hertz agreement, the sponsoring IBM employee must contact Hertz directly at 203-348-9767 to obtain a letter of authorization for the third party. These requests should be made at least one (1) week in advance.

EXPENSE ACCOUNT DETAIL

Expense accounts are to be submitted to you by your employees immediately upon return from a business trip. Actual daily expenses must be reported to you under the applicable expense category. All reimbursable expenses for a given period are to be included on one expense account.

When reporting expenses, the following information is required:

    A. dates of departure and return for each trip;
    B. travel departure point and destination;
    C. name of the IBM employee who authorized the trip;
    D. business reason for the travel;
    E. people met and business conducted;
    F. a statement that no reimbursement is due whenever expenses are not claimed for any workday your employee is on travel status; and
    G. explanation of out-of-the-ordinary amounts claimed; e.g., name(s) of individual(s) attending a luncheon if they have not paid for their own portion and claimed it individually.

RECEIPTS

An itemized receipt (copy acceptable with original retained by you) must substantiate lodging costs, airline travel, rental car and all other expenditures of twenty-five dollars ($25.00) or more. The receipt must show the amount, date, place and nature of the expense. The receipts must be attached to, and submitted with, the expense account. Reimbursement for airline travel requires a copy of the actual airline passenger coupon receipt. Reimbursement for car rental requires a copy of the actual car rental agreement.

TRANSPORTATION

Only the most economical airline accommodations, e.g., economy, coach, tourist, excursion, discount and shuttle flights are to be used. Other airline accommodations, e.g., first and business class air fare WILL NOT be reimbursed unless specifically approved by IBM in advance. Travel should be planned to take advantage of any possible discount fares. Air travel will be reimbursed only for that portion thereof which is directly related to the services being performed under this Agreement.

Rail or bus travel will be reimbursed for regular coach class. Such travel is not to exceed one day. Any additional days actually used in making the trip will be considered non-reimbursable, personal business. Ground transportation will be reimbursed for taxi, bus or car rental. Actual tolls and parking fees incurred will be reimbursed.

Use of personal automobiles to fulfill approved travel obligations under this Agreement (not applicable to normal commutation) shall be reimbursed at the rate of twenty-seven-and-a-half ($.275) cents per mile, for the most direct, practical route to the business destination. Your employees have the responsibility to maintain a "Weekly Mileage Log" which will be submitted as an attachment to your invoice. If more than one person travels in the same automobile, only your employee responsible for the automobile will be reimbursed.

IBM will not reimburse you for normal commutation expenses.

LODGING AND MEALS

IBM will reimburse reasonable and actual lodging and meal expenses incurred while traveling on approved business. Commercial type accommodations and rates are to be requested at all times.

When guaranteed reservations have been made and plans change, the reservation should be canceled in time to avoid being charged for the room. Room expense, including tax, is to be entered on the expense account by day, and the hotel bill is to be attached to the expense account. Charges on the hotel bill for other than lodging are to be entered by day under their proper classifications.

IBM will reimburse reasonable and actual meal expense. When possible each individual is to pay for his/her own meal. Should an occasion arise where one person pays for more than his/her own meal, the name(s) of the person(s) are to be written on the expense account and the explanation noted as to the business reason for the expense. Alcoholic beverage expenses are not reimbursable.

PERSONAL EXPENSES

IBM will not reimburse personal expenses. If expenses of a personal nature, including hotel shop purchases, laundry, valet, non-business telephone calls, movie charges, health club use, alcoholic beverages, sundry items, are charged against the room, the amount so charged is to be deducted from the invoice presented to IBM.

Business telephone calls made in IBM's behalf by your employees while traveling on approved IBM business will be reimbursed. If your employees are at an IBM location, business calls should be made at that location, utilizing IBM tie-lines and WATS lines, when possible. When your employees charge business calls to their home telephone numbers or personal telephone credit cards, the detailed telephone company bill is to be attached to the expense account if the aggregate total is twenty-five dollars ($25.00) or more.

IBM will reimburse reasonable and actual gratuities disbursed for business purposes by you employees while traveling on approved IBM business.

Statement of Work No. 12780-001

STATEMENT OF WORK No. 12780-001

Analysis of S/390 Platform for
Internet/Intranet Applications
May 5, 1997

1.0 PURPOSE

This Statement of Work (SOW) describes the services and Deliverable Items which Input shall furnish to the System/390 Division (S/390D) of IBM. Pursuant to this SOW Input is to undertake a market research engagement to assess the market feedback on the implementation of S/390 Platforms for Internet/Intranet applications. Input will conduct telephone interviews with customers to help IBM understand S/390 customers' progress toward implementing Internet/Intranet applications, the key drivers behind infrastructure choices, and the inhibitors, critical success factors, and differentiators in the implementation of S/390 platforms supporting Internet technology. These interviews shall provide IBM with a better understanding of how they should market S/390.

Input agrees that an objective of the services and Deliverable Items is to provide IBM with the following benefits:

- Gain improved understanding of S/390 customer usage of Internet technology

- Understand S/390 customer plans for platforms to support Internet technology

- Ensure an effective investment strategy for S/390 related to Internet and Intranet applications

- Evaluate customer satisfaction with current Internet application platforms

- Establish a profile of prospects for S/390 Internet platforms

2.0 CONTRACT COORDINATOR AND TECHNICAL COORDINATOR

IBM Contract Administrator:

Russell D. Munson
(914) 433-7643

Technical Coordinator:

Ron Dombroski
(914) 433-3091

Contractor Contract/Technical Coordinator:

Statement of Work No. 12780-001

Wilson Haddow, Vice President
Input
(415) 528 - 6311
(415) 961 - 3966 (FAX)

3.0 SCOPE

Under this SOW, Input will conduct 50 to 100 comprehensive telephone interviews with IS exec-
utives identified from lists supplied by IBM. These customers will be interviewed regarding their
experience and plans for migration to Internet technology. Input will perform the following services
as part of this project:

1. Create a draft survey questionnaire

2. Meet with IBM to review the questionnaire.

3. Receive a briefing from IBM on the S/390 product family and market.

4. Train interviewers on those aspects of the S/390 market relevant to the Internet/Intranet mar-
    ket.

5. Conduct and audiotape telephone interview survey using names and contact information sup-
    plied by IBM.

6. Tabulate and analyze the data.

7. Prepare draft results and present to IBM.

8. Prepare final report and deliver to IBM.

Input will use its best efforts to ensure that the services and Deliverable Items address:

- What business processes, function and applications are being migrated to Internet technology?

- What are the business objectives driving these changes? How satisfied are users that these
  objectives are being achieved?

- Who is initiating the changes and who is responsible for the implementation?

- What is the IT architecture being implemented to support these new applications?

- What are the hardware, software, and services selection criteria being used for the Internet and
  Intranet projects? Who is involved in the selection process?

- What hardware and software platforms were considered and selected? What were the factors
  for and against the S/390?

- What customer needs remain unmet?

- What is the potential for a packaged solution including S/390 hardware, software and services?
  What must be included in such a package in order for it to be considered as a platform for
  Internet and/or Intranet applications? What additional features and functions would users like
  to be offered in such a package?

- What are users' plans for the future of the Internet/Intranet IT infrastructure?

Statement of Work No. 12780-001

4.0 PERSONNEL SKILLS/RESOURCES

Input shall assign personnel to perform the services in this SOW who are experienced interviewers specially trained in the IT environment. The project will be led by Wilson Haddow and the interview process managed by Joanne Ponnwitz.

5.0 COMPENSATION

For services performed in accordance with this Agreement, IBM shall compensate Input as described below:

The total payment by IBM to Input for the services and Deliverable Items provided shall not exceed $50,600. This fee includes: $46,000 for services and all Deliverables associated with the telephone interviews Input will conduct; and up to $4,600 for travel and administrative fees, such as report production. This payment covers all of Input's time spent on this SOW whether at IBM or elsewhere. Such payment shall include payment for all of Input's reasonable and necessary business travel expenses. IBM shall pay no additional fees.

Input shall invoice IBM for $23,000.00 upon execution of the Agreement. Input shall invoice IBM $23,000 plus travel and administrative fees, not to exceed $4,600 upon completion and acceptance of the Deliverables and notification of IBM's determination that the all services to be provided under this SOW are complete.

6.0 SCHEDULE

Input shall commence work on this SOW on or about May 15, 1997 and will continue until approximately July 15, 1997 or until such time as IBM has notified Input that all deliverables have been accepted.

Specific dates by which Input will have completed and delivered the Deliverables to IBM shall be in accordance with Section 9.0 "Deliverables."

7.0 IBM RESPONSIBILITIES

IBM shall provide the following to Input:

1. A list of S/390 customers including company name/state/city and contact name including phone number

2. The S/390 product overview presentation;

3. Such other assistance as IBM deems reasonably necessary.

8.0 VENDOR RESPONSIBILITIES

Input shall furnish IBM the services and Deliverables more fully described in Section 3.0, "Scope" and Section 9.0 "Deliverables" in accordance with the terms and conditions of the Agreement and this SOW.

Input shall use its best efforts to keep the IBM coordinator informed of the status of the services being performed under this SOW on a regular basis. Input may so either by telephone or by written notification.

Statement of Work No. 12780-001

Input shall use its best efforts to coordinate the furnishing of services to IBM with the appropriate S/390 representative to allow for IBM's input to be incorporated into all Deliverables.

9.0 DELIVERABLES/SCHEDULE

Input shall provide IBM with the following Deliverables on or about the dates specified:

```
Project Start          on or about May 15, 1997
Draft questionnaire    on or about May 22, 1997
50 to 100 Interviews,  on or about June 15, 1997
 recorded on audiotape where possible
Survey Data Crosstabs  on or about June 30, 1997
Preliminary report     on or about July 8, 1997
Final Report           on or about July 15, 1997
```

10.0 ACCEPTANCE CRITERIA

All Deliverables Items furnished under this SOW shall be subject to IBM's final review and acceptance. The terms of Section 3.0 of the Agreement shall apply to IBM's acceptance.

11.0 OTHER REQUIREMENTS/SPECIAL TERMS

The services performed and Deliverable Items delivered under the Agreement shall be used solely for the purposes intended by this SOW and may not be used by Input for any other purpose including other IBM functions, without the prior written approval of the IBM Coordinator. See also Section 4.0 Confidential Information.

12.0 APPROVAL SIGNATURES

Accepted and Agreed to:

INTERNATIONAL BUSINESS MACHINES CORPORATION

BY:_____

Russ Munson, Contract Administrator

Date:_____

Input

BY:_____

Date:____5/8/97____

END OF STATEMENT OF WORK

IBM

Agreement No.:12781

Procurement Agreement for Exchange of Confidential Information

This Agreement will provide protection for information to be exchanged between us which we do not wish to become public ("Information") while maintaining our ability to conduct our respective business activities. Under this Agreement, IBM may disclose business Information (business plans and financial, statistical and personal data) and technical Information. You may disclose business Information, and if we have entered into Supplier Technical Information Supplement, technical Information. Each of us agrees that the following terms shall apply when one of us ("Discloser") discloses Information to the other ("Recipient") under this Agreement.

1. Disclosure

The Discloser and the Recipient will coordinate and control the disclosure. Information may be disclosed: i) in writing; ii) by delivery items; iii) by authorized access to Information, such as may be contained in a data base; or iv) by oral and/or visual presentation. All materials containing Information must have a restrictive marking of the Discloser at the time of disclosure. Information disclosed orally must be summarized in a writing provided to the Recipient within thirty (30) days of disclosure.

All disclosures of information other than those made pursuant to this Agreement shall be deemed to be non-confidential. The Discloser shall not disclose any Information which Discloser does not have the right to disclose to the Recipient.

2. Protection

For two (2) years after the date of the disclosure, the Recipient will: i) use the same care and discretion to avoid disclosure of the Discloser's Information as the Recipient uses with its own similar information which it does not wish to disclose; and ii) use the Discloser's Information only to further IBM's procurement and development activities.

3. Exceptions

The Recipient may disclose Information to: i) its employees and employees of its parent and majority owned subsidiary companies who have a need to know; and ii) any other party with the Discloser's prior written consent.

Before disclosure to any of the above parties, the Recipient must have an appropriate written or oral agreement with such party sufficient to require that party to treat Information in accordance with this Agreement.

The Recipient may disclose Information to the extent required by law, but the Recipient must give the Discloser advance notice to allow the Discloser a reasonable opportunity to obtain a protective order.

The Recipient may disclose and use the ideas, concepts, know-how and techniques related to Recipient's business activities which are contained in the Discloser's Information and retained in the memories of the Recipient's employees who have had access to the Information pursuant to this Agreement.

No obligation under this Agreement shall apply to Information that is: i) already in Recipient's possession or received by Recipient without a non-disclosure obligation; ii) developed independently by Recipient; iii) publicly available when received, or thereafter becomes publicly available through no fault of the Recipient; or iv) disclosed by Discloser to a third party without a non-disclosure obligation.

4. Disclaimers

THE DISCLOSER PROVIDES INFORMATION SOLELY ON "AS IS" BASIS.

Neither this Agreement nor any disclosure of Information hereunder grants the Recipient any right or license under any trademark, copyright or patent now or hereafter owned or controlled by the Discloser.

5. General

This Agreement does not require either party to disclose or receive Information.

Neither of us may assign or otherwise transfer our rights or delegate our duties or obligations under this Agreement without the prior written consent of the other. Any attempt to do so is void.

The receipt of Information pursuant to this Agreement will not prevent or in any way limit the Recipient from i) developing, manufacturing and marketing products or services which may be competitive with products or services of the Discloser; ii) providing products or services to others who compete with the Discloser, or iii) assigning and re-assigning its employees in any way it may choose.

The Recipient must comply with all applicable United States and foreign export laws and regulations.

Only a written agreement signed by both of us can modify this Agreement.

Either of us may terminate this Agreement by providing one month's written notice to the other. Any provisions of this Agreement which by their nature extend beyond its termination remain in effect until fulfilled and apply to our respective successors and authorized assignees.

The laws of the State of New York govern this Agreement.

This Agreement, including its Supplements (if any), is the complete and exclusive agreement our disclosure of information.

Agreed to:

INPUT

By: _I___ ___ _____

Name: _J. M. WILSON HADDOW_

Date: _5/8/97_

Agreed to:

International Business Machines Corporation

By: _____

Name: _____

Date: _____

>From roncd@us.ibm.com Tue Jan 06 10:38:28 1998
From: Ron Dombroski <roncd@us.ibm.com>
To: <wh@input.com>
Subject: Project Status
Date: Tue, 6 Jan 1998 10:35:47 -0500

Wilson, please provide me with project status and anticipated dates for
deliverables. Thanks.

Ron Dombroski
Consulting Market Specialist
IBM Server Brand Management
522 South Rd MS P124
Poughkeepsie, NY 12601-5400

(914) 433-3091   phone
(914) 432-9418   fax

roncd@us.ibm.com

---------------------- Forwarded by Ron Dombroski/Poughkeepsie/IBM on 01/06/98
10:30 AM --------------------------

        Ron Dombroski
        12/09/97 09:28 AM

To: wh@input.com@internet
cc:
From: Ron Dombroski/Poughkeepsie/IBM @ IBMUS
Subject:

Wilson, at this time, I do not have a format in mind for coordinating the
reports from each of the three audiences (and vendors). But it is likely to
be a good idea. I welcome your suggestions for templates on data
presentation. Sometimes the first input becomes the standard, so feel free.
We do need to synchronize the timing, with early January as the deadline for
reports. Thanks.

Ron Dombroski
Consulting Market Specialist
IBM Server Brand Management
522 South Rd MS P124
Poughkeepsie, NY 12601-5400

(914) 433-3091   phone
(914) 432-9418   fax

roncd@us.ibm.com

responded by phone 1/7/98

EXECUTIVE SUMMARY

Analysis of S/390 Platform for Internet/Intranet Applications

Executive Summary

This study (Analysis of S/390 Platform for Internet/Intranet Applications) examined S/390 customers' progress towards implementing Internet and Intranet applications. Other areas addressed by the study include key drivers behind the hardware and software infrastructure choices for Internet and Intranet applications, and the capabilities of the S/390 platform to support these Internet applications.

This summary provides a top-level analysis of the findings of the study and key conclusions.

A

Current and Planned Use of Internet/Intranet Applications

Most users have started to use Internet technology. However, this is still at an early stage (i.e. used predominately for communication).

Few companies are making, or planning to make, payments via the Internet.

Exhibit 1 shows the percentage of companies using Internet/Intranet applications of differing types. Respondents were asked to identify all the business areas in which Internet/Intranet applications are or will be used.
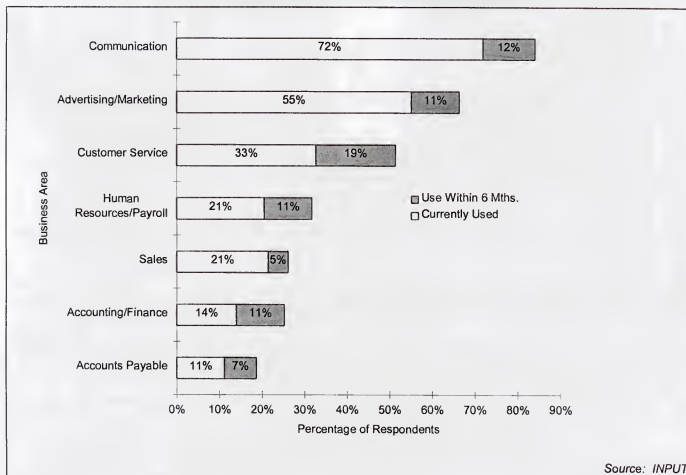
Most companies are still relative novices in their use of Internet technology. This is illustrated by the low percentage (under 25%) of customers using the Internet for more "sophisticated" applications such as Sales and Accounting.

For most organizations, the evolution of application types is:

1. Access — email communication

2. Presence — advertising via creation of a home page

3. Operation — use of internally focused applications (e.g. Human Resources) and/or "passive" (non-transaction oriented) applications such as on-line availability of manuals

4. Transaction — use of applications requiring a 2-way flow of transactions across an Internet/Intranet (e.g. order systems)

5. Payments — electronic payments issued across the Internet

Exhibit 1

Current/Planned Use of the Internet/Intranet

107 Respondents

The greatest opportunity to increase the use of Internet/Intranet applications is in the application areas where there is low current activity — Accounts Payable, Accounting/Finance, Sales and Human Resources. These are the areas where plans are just being made for system development.

Very few customers indicated any plans for using Internet technology within application areas specific to their industries.

B

Internet/Intranet Platform Selection Criteria

Respondents were asked to rate the importance of hardware and software selection criteria used to select Internet/Intranet applications. These criteria drive the choice of the hardware and software platform. Mean responses for all respondents are presented in Exhibit 2.

Exhibit 2

Product Selection Criteria

Margin of error: 0.1

It is unusual to obtain an average rating of over 4.5 or higher, on a scale of 1-5, in a survey.

The high ratings for security, availability and transaction response rate criteria indicate that these are extremely important points.

The capabilities of the S/390 were rated by respondents as to its suitability as an Internet/Intranet platform. Exhibit 3 shows the mean ratings of respondents of the capabilities of the S/390 as an Internet/Intranet platform.

Exhibit 3

Capabilities of the S/390

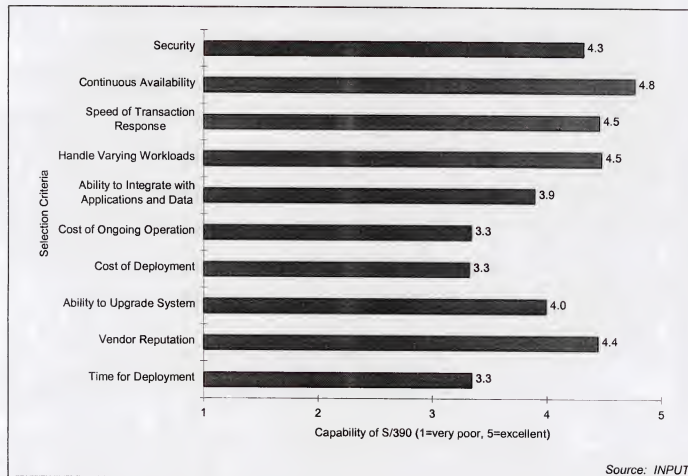| Selection Criteria	Capability of S/390 (1=very poor, 5=excellent)
Security	4.3
Continuous Availability	4.8
Speed of Transaction Response	4.5
Handle Varying Workloads	4.5
Ability to Integrate with Applications and Data	3.9
Cost of Ongoing Operation	3.3
Cost of Deployment	3.3
Ability to Upgrade System	4.0
Vendor Reputation	4.4
Time for Deployment	3.3

Source: INPUT

Margin of error: 0.1

Although there are some differences between the ratings of importance for the various criteria and the ratings of S/390 capabilities, most respondents indicate there is a good overall match. This match is especially true for the criteria rated most highly in importance.
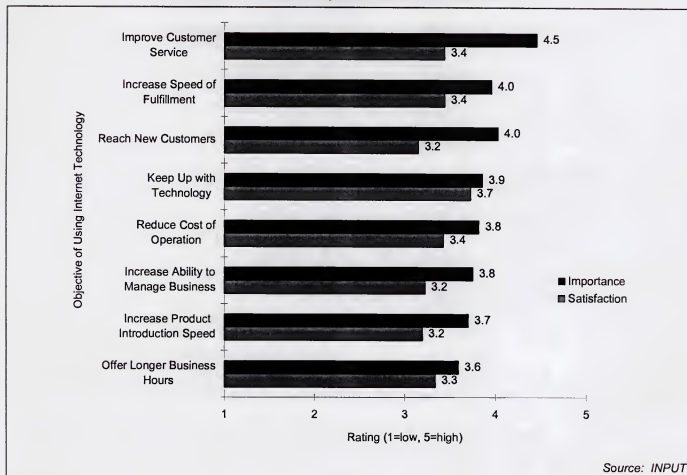
C
Drivers and Inhibitors of Internet/Technology Usage

Exhibit 4 presents the objectives driving the implementation of Internet technology and the satisfaction in attainment at this point as reported by all respondents.

Exhibit 4

Internet Drivers - Importance and Satisfaction

Objective of Using Internet Technology

Objective	Importance	Satisfaction
Improve Customer Service	4.5	3.4
Increase Speed of Fulfillment	4.0	3.4
Reach New Customers	4.0	3.2
Keep Up with Technology	3.9	3.7
Reduce Cost of Operation	3.8	3.4
Increase Ability to Manage Business	3.8	3.2
Increase Product Introduction Speed	3.7	3.2
Offer Longer Business Hours	3.6	3.3

Rating (1=low, 5=high)

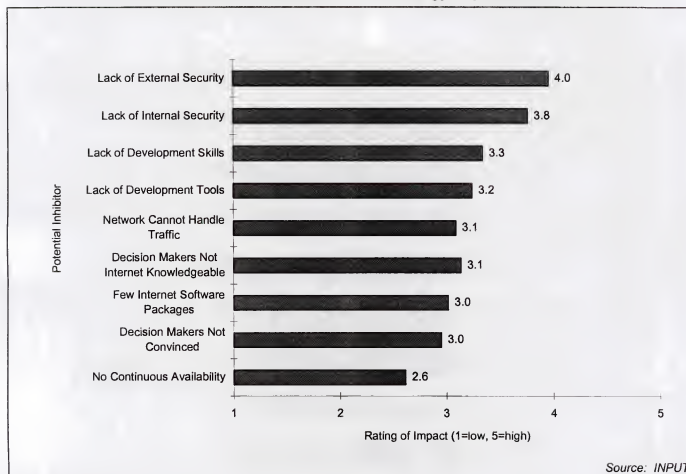*Source: INPUT*

Margin of error: 0.1

The relatively low ratings of satisfaction with achievement of objectives compared with importance of the Internet drivers is consistent with other studies that INPUT has conducted in the Internet market.

The primary cause of the shortfall is the short lifespan, and relative immaturity, of applications in this part of the market.

Exhibit 5 gives the rating of potential inhibitors to the planning and implementation of Internet technology.

Exhibit 5

Potential Inhibitors to Internet Technology Implementation

Horizontal bar chart. Y-axis labeled "Potential Inhibitor", X-axis labeled "Rating of Impact (1=low, 5=high)".

Potential Inhibitor	Rating
Lack of External Security	4.0
Lack of Internal Security	3.8
Lack of Development Skills	3.3
Lack of Development Tools	3.2
Network Cannot Handle Traffic	3.1
Decision Makers Not Internet Knowledgeable	3.1
Few Internet Software Packages	3.0
Decision Makers Not Convinced	3.0
No Continuous Availability	2.6

Source: INPUT

Margin of error: 0.1

Security remains the major concern with regard to the Internet environment —this an area where the S/390 was highly rated.
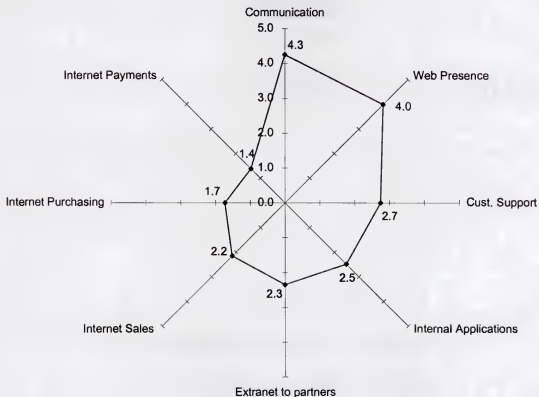
D
Status of Internet Application Deployment

One of the objectives of the study was to examine progress towards implementing Internet and Intranet technology.

Respondents were asked to describe progress toward live implementation of a list of 8 Internet/Intranet applications. Exhibit 6 presents the current status of the applications and the stage of development at this time.

Exhibit 6

Status of Internet/Intranet Applications

Source: INPUT

This chart shows the users relative maturity in each of the application areas.

The "maturity" values were assigned to the various stages of usage based on the following scale:

- No Current Activity — 1
- Considering Internet Use — 2
- Developing Software — 3
- Pilot Implemented — 4
- Full Implementation — 5

Communications is the area in which users have most experience (average value 4.3) and use of payments was the lowest with a value of 1.4. The low

value of maturity for payments reflects the very low use of Internet technology for inter-company payments.

The strong security features of the S/390 plus ability to integrate with multiple applications, as shown in Exhibit 3, make the S/390 a good platform for Internet payment applications.
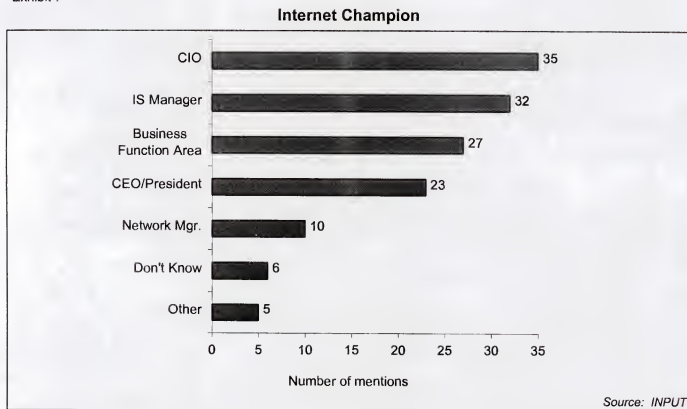
E
Internet/Intranet Champions and Decision Makers

In the decision to move to Internet technology, one of the most important people within the company is the Internet champion. This is the person who will push projects along and keep the company moving forward in the use of the Internet.

In roughly one-third of the companies interviewed, it is the CIO that is pushing the company towards Internet technology, Exhibit 7.

Exhibit 7

Internet Champion

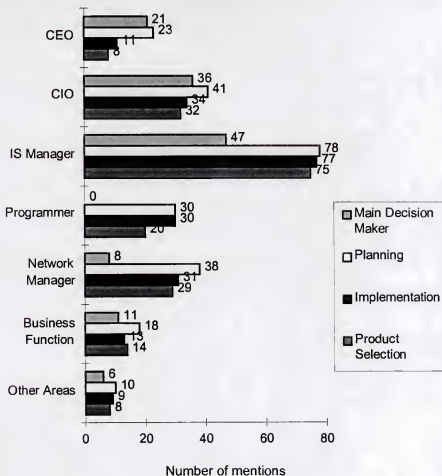| Champion	Number of mentions
CIO	35
IS Manager	32
Business Function Area	27
CEO/President	23
Network Mgr.	10
Don't Know	6
Other	5

Number of mentions

Source: INPUT

The IS department, the CIO and the IS Manager, are also the main positions involved in the planning and implementation of Internet strategy and the

selection of hardware and software products to be used.   In about 50% of the
respondent companies, the IS department was the main decision maker.

Exhibit 8

Product Selection Influence

CEO: 21, 23, 11, 8

CIO: 36, 41, 34, 32

IS Manager: 47, 78, 77, 75

Programmer: 0, 30, 30, 20

Network Manager: 8, 38, 31, 29

Business Function: 11, 18, 13, 14

Other Areas: 6, 10, 9, 8

Legend:
- Main Decision Maker
- Planning
- Implementation
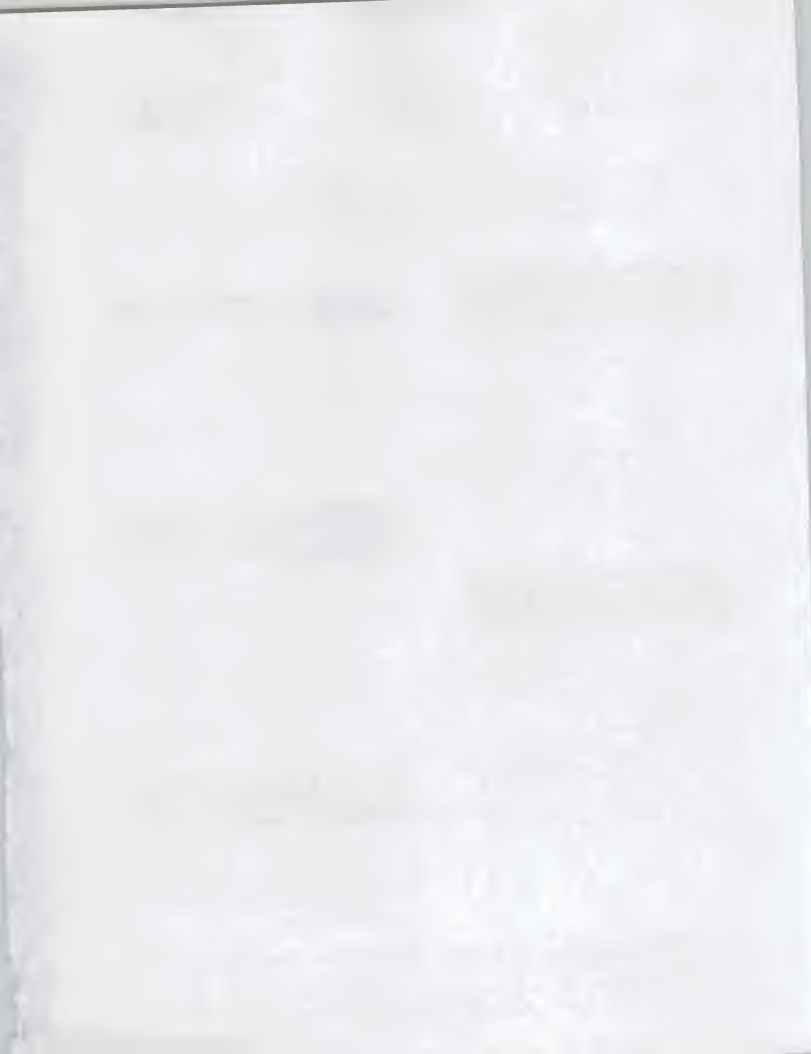- Product Selection

Number of mentions

Source: INPUT

Exhibit 8 is believed to be biased in favor of IS Manager involvement since IS
was the main department interviewed for this study.

F
Conclusions

Conclusions

1. Most customers have started to use Internet technology, but this is still at an early stage. Most current use is for communications and advertising.

2. Few companies are now making, or planning to make, payments via the Internet.

3. Lack of security and lack of the development skills and tools are key inhibitors to the implementation of Internet technology.

4. Security, continuous availability, and speed and rate of transaction response are key criteria for Internet platform selection. S/390 was rated very highly on these criteria.

5. The Internet/Intranet environment should be considered as a multi-platform and not a single-platform environment.

About INPUT

INPUT

- Clients make informed decisions more quickly and economically by using INPUT's services. Formed in 1974, INPUT is an independent, international market research and consulting firm dedicated to the information systems, software and services industries.

SUBSCRIPTION SERVICES (U.S. AND EUROPE)

Clients receive research on electronic business across the following areas:

- Electronic Processes -- How users conduct business
- Enabling Technologies -- What technologies are used to conduct business
- Infrastructure Support -- Which activities support the business
- Market Forecasts
- Vendor Profiles

SERVICE FEATURES

- Research - based reports on trends, etc. (More than 100 in-depth reports per year.)
- Frequent bulletins on events, issues, etc.
- 5-year market forecast
- Competitive analysis
- Access to experienced consultants
- Immediate answers to questions
- On-site presentations
- Electronic report delivery

DATABASES

- Software and Services Software and Services Vendors
- Market Forecasts
- U.S. Federal Government
  - Procurement plans (PAR, APR)
  - Market Forecasts
  - Awards (FAIT)

CUSTOM RESEARCH

INPUT provides objective and proprietary analysis of clients' problems and opportunities. Typical projects include:

- Market/Product Strategy Research
- Marketing (e.g., Pricing Strategies)
- Customer Satisfaction Analysis
  - Competitive Analysis
  - Information Systems Strategy

PARTNERING/ACQUISITION SERVICES

Through its over 20 years of experience, data base and contacts, INPUT offers clients effective support in partnering including acquisition searches, particularly in the international arena.

Frankfurt • London • New York • Paris • Moutain View • Tokyo • Washington D.C.

INPUT, 1881 Landings Drive, Mountain View, CA 94043-0848 U.S.A.
Tel. (650) 961-3300 • Fax (650)961-3966 • http://www.input.com • sales@input.com

EXECUTIVE SUMMARY

Analysis of S/390 Platform for Internet/Intranet Applications

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4. Transaction — use of applications requiring a 2-way flow of transactions across an Internet/Intranet (e.g. order systems)

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Exhibit 2

Product Selection Criteria

Chart: Selection Criteria (y-axis) vs Rating of Importance (1=low, 5=high) (x-axis)

Selection Criteria	Rating
Security	4.7
Continuous Availability	4.6
Speed of Transaction Response	4.5
Handle High Transaction Rate	4.3
Ability to Integrate with Applications and Data	4.2
Cost of Ongoing Operation	4.0
Cost of Deployment	4.0
Ability to Upgrade System	4.0
Vendor Reputation	3.8
Time for Deployment	3.7

Source: INPUT

Margin of error: 0.1

It is unusual to obtain an average rating of over 4.5 or higher, on a scale of 1-5, in a survey.

The high ratings for security, availability and transaction response rate criteria indicate that these are extremely important points.

The capabilities of the S/390 were rated by respondents as to its suitability as an Internet/Intranet platform. Exhibit 3 shows the mean ratings of respondents of the capabilities of the S/390 as an Internet/Intranet platform.

Exhibit 3

Capabilities of the S/390

Margin of error: 0.1

Although there are some differences between the ratings of importance for the various criteria and the ratings of S/390 capabilities, most respondents indicate there is a good overall match. This match is especially true for the criteria rated most highly in importance.

C

Drivers and Inhibitors of Internet/Technology Usage
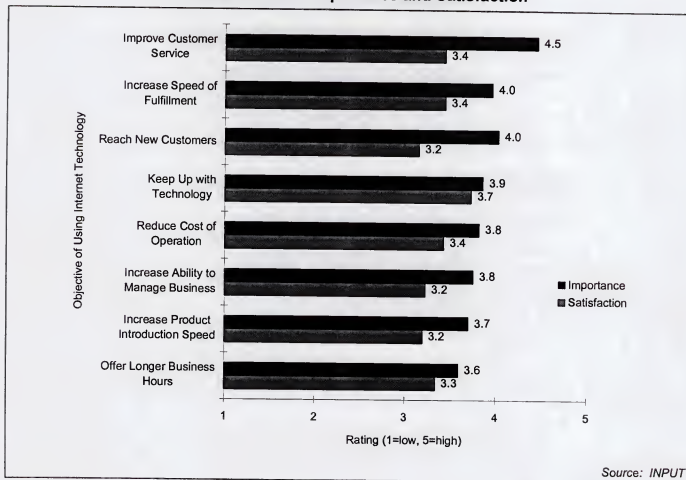
Exhibit 4 presents the objectives driving the implementation of Internet technology and the satisfaction in attainment at this point as reported by all respondents.

Exhibit 4

Internet Drivers - Importance and Satisfaction

Objective of Using Internet Technology

Improve Customer Service	Importance 4.5 / Satisfaction 3.4
Increase Speed of Fulfillment	Importance 4.0 / Satisfaction 3.4
Reach New Customers	Importance 4.0 / Satisfaction 3.2
Keep Up with Technology	Importance 3.9 / Satisfaction 3.7
Reduce Cost of Operation	Importance 3.8 / Satisfaction 3.4
Increase Ability to Manage Business	Importance 3.8 / Satisfaction 3.2
Increase Product Introduction Speed	Importance 3.7 / Satisfaction 3.2
Offer Longer Business Hours	Importance 3.6 / Satisfaction 3.3

Rating (1=low, 5=high)

■ Importance
■ Satisfaction

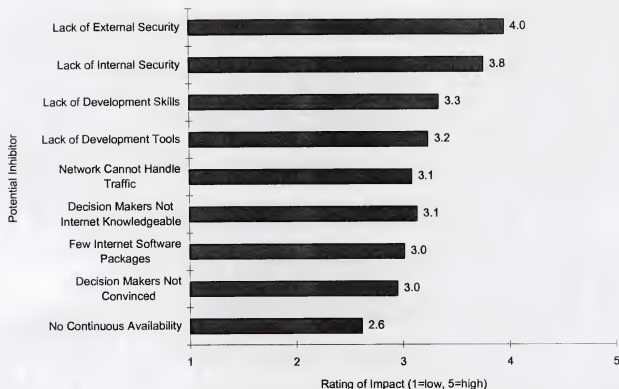Source: INPUT

Margin of error: 0.1

The relatively low ratings of satisfaction with achievement of objectives compared with importance of the Internet drivers is consistent with other studies that INPUT has conducted in the Internet market.

The primary cause of the shortfall is the short lifespan, and relative immaturity, of applications in this part of the market.

Exhibit 5 gives the rating of potential inhibitors to the planning and implementation of Internet technology.

Exhibit 5

Potential Inhibitors to Internet Technology Implementation

Potential Inhibitor	Rating
Lack of External Security	4.0
Lack of Internal Security	3.8
Lack of Development Skills	3.3
Lack of Development Tools	3.2
Network Cannot Handle Traffic	3.1
Decision Makers Not Internet Knowledgeable	3.1
Few Internet Software Packages	3.0
Decision Makers Not Convinced	3.0
No Continuous Availability	2.6

Rating of Impact (1=low, 5=high)

Source: INPUT

Margin of error: 0.1

Security remains the major concern with regard to the Internet environment —this an area where the S/390 was highly rated.
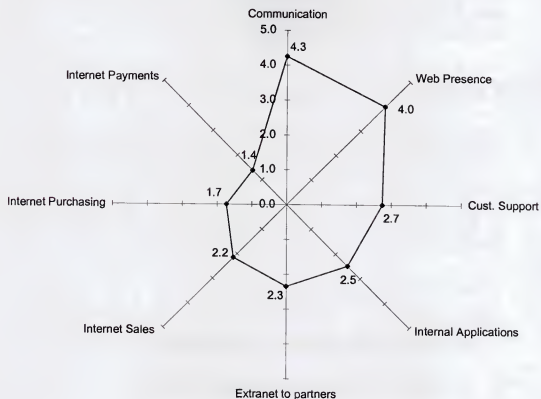
D
Status of Internet Application Deployment

One of the objectives of the study was to examine progress towards implementing Internet and Intranet technology.

Respondents were asked to describe progress toward live implementation of a list of 8 Internet/Intranet applications. Exhibit 6 presents the current status of the applications and the stage of development at this time.

Exhibit 6

Status of Internet/Intranet Applications

Source: INPUT

This chart shows the users relative maturity in each of the application areas.

The "maturity" values were assigned to the various stages of usage based on the following scale:

- No Current Activity — 1

- Considering Internet Use — 2

- Developing Software — 3

- Pilot Implemented — 4

- Full Implementation — 5

Communications is the area in which users have most experience (average value 4.3) and use of payments was the lowest with a value of 1.4. The low

value of maturity for payments reflects the very low use of Internet technology for inter-company payments.

The strong security features of the S/390 plus ability to integrate with multiple applications, as shown in Exhibit 3, make the S/390 a good platform for Internet payment applications.
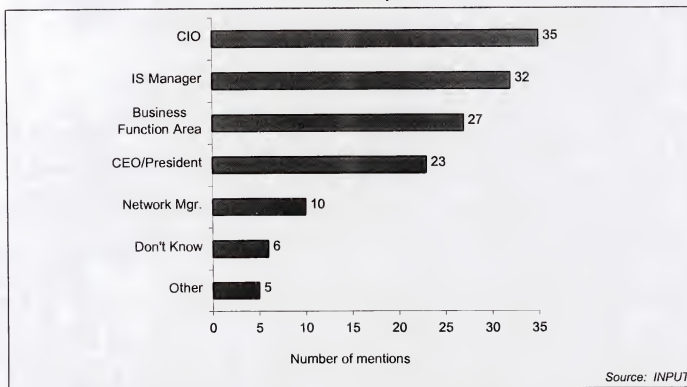
E
Internet/Intranet Champions and Decision Makers

In the decision to move to Internet technology, one of the most important people within the company is the Internet champion. This is the person who will push projects along and keep the company moving forward in the use of the Internet.

In roughly one-third of the companies interviewed, it is the CIO that is pushing the company towards Internet technology, Exhibit 7.

Exhibit 7

Internet Champion

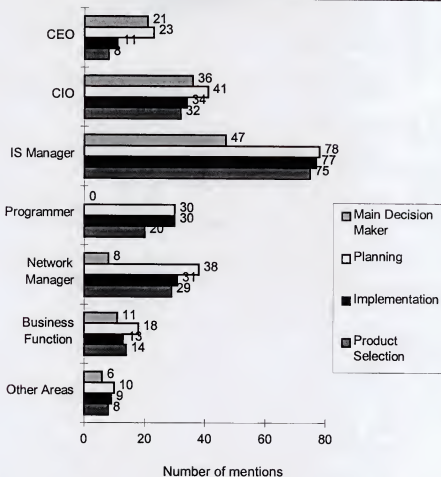| Category	Number of mentions
CIO	35
IS Manager	32
Business Function Area	27
CEO/President	23
Network Mgr.	10
Don't Know	6
Other	5

Number of mentions

Source: INPUT

The IS department, the CIO and the IS Manager, are also the main positions involved in the planning and implementation of Internet strategy and the

selection of hardware and software products to be used.   In about 50% of the respondent companies, the IS department was the main decision maker.

Exhibit 8

Product Selection Influence

	Main Decision Maker	Planning	Implementation	Product Selection
CEO	8	11	23	21
CIO	32	34	41	36
IS Manager	75	77	78	47
Programmer	20	30	30	0
Network Manager	29	31	38	8
Business Function	14	13	18	11
Other Areas	8	9	10	6

Number of mentions

Source: INPUT

Exhibit 8 is believed to be biased in favor of IS Manager involvement since IS was the main department interviewed for this study.

F
Conclusions

Conclusions

1. Most customers have started to use Internet technology, but this is still at an early stage. Most current use is for communications and advertising.

2. Few companies are now making, or planning to make, payments via the Internet.

3. Lack of security and lack of the development skills and tools are key inhibitors to the implementation of Internet technology.

4. Security, continuous availability, and speed and rate of transaction response are key criteria for Internet platform selection. S/390 was rated very highly on these criteria.

5. The Internet/Intranet environment should be considered as a multi-platform and not a single-platform environment.

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- Enabling Technologies -- What technologies are used to conduct business
- Infrastructure Support -- Which activities support the business
- Market Forecasts
- Vendor Profiles

SERVICE FEATURES

- Research - based reports on trends, etc. (More than 100 in-depth reports per year.)
- Frequent bulletins on events, issues, etc.
- 5-year market forecast
- Competitive analysis
- Access to experienced consultants
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- On-site presentations
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DATABASES

- Software and Services Software and Services Vendors
- Market Forecasts
- U.S. Federal Government
  - Procurement plans (PAR, APR)
  - Market Forecasts
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EXECUTIVE SUMMARY

Analysis of S/390 Platform for Internet/Intranet Applications

Executive Summary

This study (Analysis of S/390 Platform for Internet/Intranet Applications) examined S/390 customers' progress towards implementing Internet and Intranet applications. Other areas addressed by the study include key drivers behind the hardware and software infrastructure choices for Internet and Intranet applications, and the capabilities of the S/390 platform to support these Internet applications.

This summary provides a top-level analysis of the findings of the study and key conclusions.

A

Current and Planned Use of Internet/Intranet Applications

Most users have started to use Internet technology. However, this is still at an early stage (i.e. used predominately for communication).

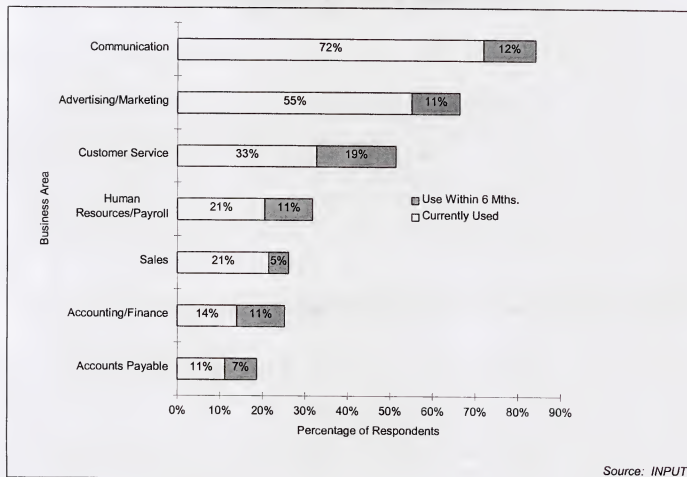Few companies are making, or planning to make, payments via the Internet.

Exhibit 1 shows the percentage of companies using Internet/Intranet applications of differing types. Respondents were asked to identify all the business areas in which Internet/Intranet applications are or will be used.

Most companies are still relative novices in their use of Internet technology. This is illustrated by the low percentage (under 25%) of customers using the Internet for more "sophisticated" applications such as Sales and Accounting.

For most organizations, the evolution of application types is:

1. Access — email communication

2. Presence —— advertising via creation of a home page

3. Operation —— use of internally focused applications (e.g. Human Resources) and/or "passive" (non-transaction oriented) applications such as on-line availability of manuals

4. Transaction —— use of applications requiring a 2-way flow of transactions across an Internet/Intranet (e.g. order systems)

5. Payments —— electronic payments issued across the Internet

Exhibit 1

Current/Planned Use of the Internet/Intranet

107 Respondents

The greatest opportunity to increase the use of Internet/Intranet applications is in the application areas where there is low current activity — Accounts Payable, Accounting/Finance, Sales and Human Resources. These are the areas where plans are just being made for system development.

Very few customers indicated any plans for using Internet technology within application areas specific to their industries.

B

Internet/Intranet Platform Selection Criteria

Respondents were asked to rate the importance of hardware and software selection criteria used to select Internet/Intranet applications. These criteria drive the choice of the hardware and software platform. Mean responses for all respondents are presented in Exhibit 2.

Exhibit 2

Product Selection Criteria

Selection Criteria (y-axis), top to bottom:
- Security — 4.7
- Continuous Availability — 4.6
- Speed of Transaction Response — 4.5
- Handle High Transaction Rate — 4.3
- Ability to Integrate with Applications and Data — 4.2
- Cost of Ongoing Operation — 4.0
- Cost of Deployment — 4.0
- Ability to Upgrade System — 4.0
- Vendor Reputation — 3.8
- Time for Deployment — 3.7

Rating of Importance (1=low, 5=high)

Source: INPUT

Margin of error: 0.1

It is unusual to obtain an average rating of over 4.5 or higher, on a scale of 1-5, in a survey.

The high ratings for security, availability and transaction response rate criteria indicate that these are extremely important points.

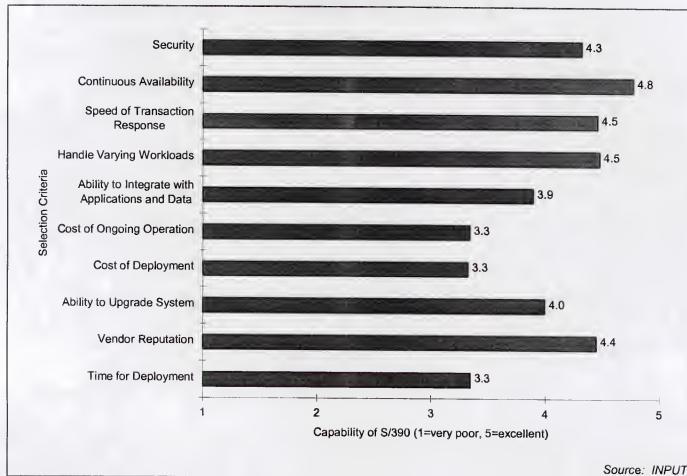The capabilities of the S/390 were rated by respondents as to its suitability as an Internet/Intranet platform. Exhibit 3 shows the mean ratings of respondents of the capabilities of the S/390 as an Internet/Intranet platform.

Exhibit 3

Capabilities of the S/390

Selection Criteria (y-axis):
- Security: 4.3
- Continuous Availability: 4.8
- Speed of Transaction Response: 4.5
- Handle Varying Workloads: 4.5
- Ability to Integrate with Applications and Data: 3.9
- Cost of Ongoing Operation: 3.3
- Cost of Deployment: 3.3
- Ability to Upgrade System: 4.0
- Vendor Reputation: 4.4
- Time for Deployment: 3.3

Capability of S/390 (1=very poor, 5=excellent)

Source: INPUT

Margin of error: 0.1

Although there are some differences between the ratings of importance for the various criteria and the ratings of S/390 capabilities, most respondents indicate there is a good overall match. This match is especially true for the criteria rated most highly in importance.
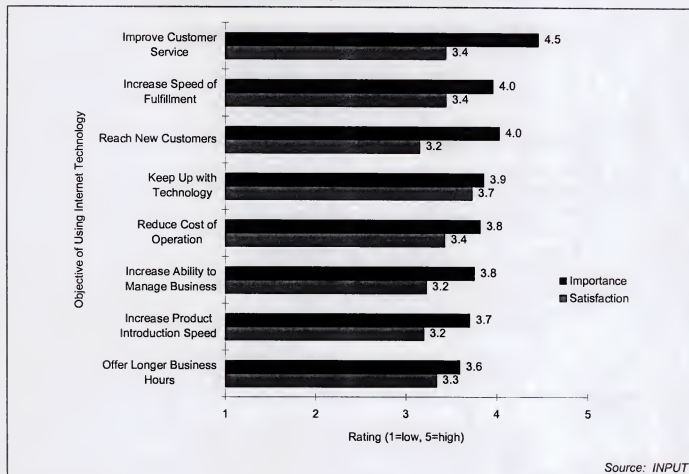
C
Drivers and Inhibitors of Internet/Technology Usage

Exhibit 4 presents the objectives driving the implementation of Internet technology and the satisfaction in attainment at this point as reported by all respondents.

Exhibit 4

Internet Drivers - Importance and Satisfaction

Objective of Using Internet Technology

Objective	Importance	Satisfaction
Improve Customer Service	4.5	3.4
Increase Speed of Fulfillment	4.0	3.4
Reach New Customers	4.0	3.2
Keep Up with Technology	3.9	3.7
Reduce Cost of Operation	3.8	3.4
Increase Ability to Manage Business	3.8	3.2
Increase Product Introduction Speed	3.7	3.2
Offer Longer Business Hours	3.6	3.3

Rating (1=low, 5=high)

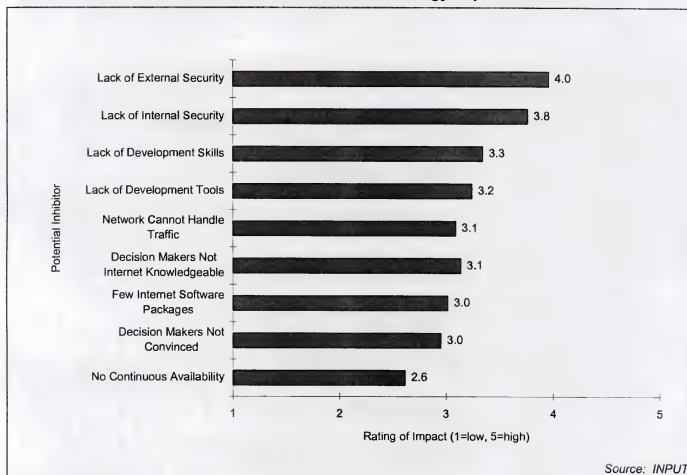Source: INPUT

Margin of error: 0.1

The relatively low ratings of satisfaction with achievement of objectives compared with importance of the Internet drivers is consistent with other studies that INPUT has conducted in the Internet market.

The primary cause of the shortfall is the short lifespan, and relative immaturity, of applications in this part of the market.

Exhibit 5 gives the rating of potential inhibitors to the planning and implementation of Internet technology.

Exhibit 5

Potential Inhibitors to Internet Technology Implementation

Margin of error: 0.1

Security remains the major concern with regard to the Internet environment —this an area where the S/390 was highly rated.
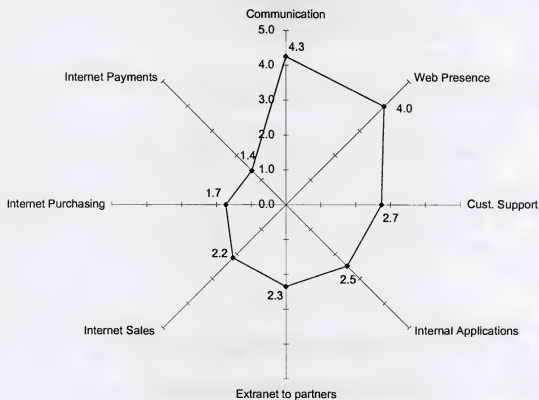
D

Status of Internet Application Deployment

One of the objectives of the study was to examine progress towards implementing Internet and Intranet technology.

Respondents were asked to describe progress toward live implementation of a list of 8 Internet/Intranet applications. Exhibit 6 presents the current status of the applications and the stage of development at this time.

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Status of Internet/Intranet Applications

Source: INPUT

This chart shows the users relative maturity in each of the application areas.

The "maturity" values were assigned to the various stages of usage based on the following scale:

- No Current Activity   — 1

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Communications is the area in which users have most experience (average value 4.3) and use of payments was the lowest with a value of 1.4. The low

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The strong security features of the S/390 plus ability to integrate with multiple applications, as shown in Exhibit 3, make the S/390 a good platform for Internet payment applications.

E
Internet/Intranet Champions and Decision Makers

In the decision to move to Internet technology, one of the most important people within the company is the Internet champion. This is the person who will push projects along and keep the company moving forward in the use of the Internet.

In roughly one-third of the companies interviewed, it is the CIO that is pushing the company towards Internet technology, Exhibit 7.

Exhibit 7

Internet Champion

CIO	35
IS Manager	32
Business Function Area	27
CEO/President	23
Network Mgr.	10
Don't Know	6
Other	5

Number of mentions

Source: INPUT

The IS department, the CIO and the IS Manager, are also the main positions involved in the planning and implementation of Internet strategy and the

selection of hardware and software products to be used. In about 50% of the respondent companies, the IS department was the main decision maker.

Exhibit 8

Product Selection Influence

CEO: 21, 23, 11, 8
CIO: 36, 41, 34, 32
IS Manager: 47, 78, 77, 75
Programmer: 0, 30, 30, 20
Network Manager: 8, 38, 31, 29
Business Function: 11, 18, 13, 14
Other Areas: 6, 10, 9, 8

Legend:
□ Main Decision Maker
□ Planning
■ Implementation
▨ Product Selection

Number of mentions

Source: INPUT

Exhibit 8 is believed to be biased in favor of IS Manager involvement since IS was the main department interviewed for this study.

F
Conclusions

Conclusions

1. Most customers have started to use Internet technology, but this is still at an early stage. Most current use is for communications and advertising.

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- Electronic report delivery

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Subject: _____

        _____

No. of Pages: ____ _22_ _____

   (including cover sheet)

Notes: _____

                   ▸

_____

IBM S/390 Division

Wilson,

This report is getting to be _very_ good. I have marked up pages as promised. Please call with any questions to discuss.

One open-end is that in our LCIP tracking survey we found just 6% of customers implementing / planning Internet would use S/390 as primary platform for this. Per exhibit 11-2, we are finding 49% in this study. Why is this so much higher? We _need_ to address this in the executive summary.

I need this entire report complete and in my hands by end of next week.

Thanks how

CC: Joanne Ponnwitz

Add this somewhere as Appendix A

~~SEGMENT LEGEND~~

Appendix: Segment/Legend

SEGMENT	CONTENT	DESCRIPTORS
TECHNOLOGY ADVANTAGE --- LARGE *5A*	HLU>=125 MIPS (msu>=23) - 9672R3, R4, Rx - Skyline, Pilot, Millenium H5, GX8xx4, 5990-xx70 with - Links/9674s or - R3, R4, Rx - Skyline, Pilot, Millenium	Parallel sysplex capable Mostly multiple systems Newest, biggest systems Current software & techno. Large staff I/T critical to business Value high availability
BUSINESS CONSTRAINED *5*	H5, GX8xx4, 5995-xx70 without - Links/9674s or - R3, R4, Rx or - Skyline, Pilot, Millenium 9673, 9672E/P HLU>=125 MIPS - 9672R3, R4 but - Used & without links	Prior "leading edge" Often multiple systems Current software Value function, but justification difficult Increased cost focus View I/T as an asset
TECHNOLOGY ADVANTAGE --- MIDSIZE *4A* .	HLU<=124 MIPS (msu<=22) - 9672R1, R2 - Pilot, Millenium - 9672R3, R4, Rx - 2003	Primarily single system Highest OS/390 content Limited staff Like solution offerings Leading edge image
STABLE GROWTH *3/4*	,H2, 9121, 9221 } new	Acquired NEW Moderate growth Fairly current software, but migration a concern Price sensitive
PRICE DRIVEN *2*	H2, 9121, 9221 } used GX8xx2, GX6xxx, 5995-xx50	IBM acquired USED Very cost conscious Little value on new function Fairly current software, but migration a concern
MATURE *✱* *0/1*	H0, 3090, GX8xx0, EX, 5990/5 9370, 43xx, 308X, 5890, 580 470V, XL, VL, AS	Old technology Back level software single system, small staff Low operating costs No value on new funct/techno

✱ 0/1 accounts were not surveyed in this study

Introduction

A
Purpose and Scope

IBM conducts on a periodic basis, a study of the issues surrounding the use of S/390 computers. This information is valuable for the strategic planning of the IBM S/390 line.

This study seeks to examine S/390 customers' progress towards implementing Internet and Intranet applications and was done in cooperation with Ron Dombroski, IBM S/390 Division. Other objectives addressed by the study include key drivers behind the hardware and software infrastructure choices for Internet and Intranet applications and inhibitors/critical success factors in the implementation of S/390 platforms supporting Internet technology.

This is a follow-on to the more general Large Customer IT Panel, Wave 7 study conducted in Spring 1997. Interviews were completed for this latest study based on a list supplied by IBM of sites and contacts who had responded to the Wave 7 study.

in the U.S.

Please label each page as IBM Confidential

1

B
Demographics

Customers from a mixture of industries were interviewed are shown in Exhibit I-1.

Exhibit I-1

Industries Interviewed

Manufacturing	16
Banking/Finance	6
Education	23
Insurance	15
Distribution	5
Government	19
Services	10
Communications	1
Health	8
Other	4
Total Interviews	**107**

Source: INPUT

The interviews were segmented according to the definition of the installation and the respondent company's likelihood to implement Internet/Intranet technology.

- Segments 4A, 5, 5A are newer large scale systems *(See Appendix A)*

- Segments 2, 3, 4 are older more mature sites.

- Users referred to as Internet Type 1 consisted of companies that are currently implementing an Intranet or internal network that uses Internet technology.

- Users referred to as Internet Type 2 consisted of companies that plan to implement an Intranet within the next six months or sometime after the next six months.

A qualifying question for the research inquired as to the use or planned use of the Internet for business applications. Companies with no current or planned Internet usage were excluded from the study.

The largest number of interviews were to be done with the group consisting of segments 4A, 5, 5A.

The following charts shows the breakdown of the interviews by segment and Internet type. Exhibits in the following chapters will refer to this table when the data is broken into groups.

Exhibit I-2

Segment and Internet Type of Interviews Conducted *Internet Progress* (handwritten)

Group 1	4, 4A, 5	Implemented	28
Group 2	4, 4A, 5	Planning	34
Group 3	2, 3, 4	Implemented	27
Group 4	2, 3, 4	Planning	18

Source: INPUT

(handwritten left margin: Use it for Ex. 11-3.)

Exhibit I-3 presents the percent breakdown of users that reported being involved to planning involvement with the Internet or an Intranet application in the next six months.

Exhibit I-3

Internet/Intranet Use

Bar chart:
- Group 1: 86% / 100%
- Group 2: 85% / 88%
- Group 3: 78% / 85%
- Group 4: 94% / 94%

Legend: ■ Internet Use, ■ Intranet Use

Axis: 0%, 25%, 50%, 75%, 100%
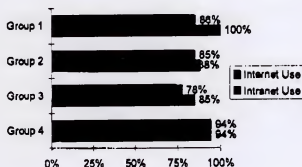
Source: INPUT

C
Organization of Report

The remainder of the report is organized in the following manner:

Chapter 2 - Executive Summary discusses the overall environment and evaluation of selection criteria plus conclusions and recommendations.

Chapter 3 - Presents current and planned use of Internet technology.

Chapter 4 - Details the Internet/Intranet platform selection criteria.

Chapter 5 - Provides a comparison of S/390 capability and Internet/Intranet platform selection criteria.

Chapter 6 - Presents drivers and inhibitors to Internet/Intranet usage.

Chapter 7 - Details the status of Internet application maturity.

Chapter 8 - Presents an evaluation of components of S/390 Internet packaging.

Executive Summary

This chapter provides a top-level analysis of the findings of the study and key conclusions and recommendations

The following chapters contain backup material to this summary. There is a chapter relating to each section of the summary.

A
Current and Planned Use of Internet/Intranet Applications

Most users have started to use Internet technology. However, this is still at an early stage (i.e. used predominately for communication).

Few companies are making, or planning to make, payments via the Internet.

Exhibit II-1 shows the percentage of companies using Internet/Intranet applications of differing types. Respondents were asked to identify all the business areas in which Internet/Intranet applications are or will be used.

Most companies are still relative novices in their use of Internet technology. This is illustrated by the rapid decline in the total percentage of users using or planning to use Internet/Intranet applications in the various business areas.

For most organizations, the evolution of application types is:

1. Access — email communication

2. Presence — advertising via creation of a home page

3. Operation — use of internally focused applications (e.g. Human Resources) and/or "passive" (non-transaction oriented) applications such as on-line availability of manuals

4. Transaction — use of applications requiring a 2-way flow of transactions across an Internet/Intranet (e.g. order systems)

5. Payments — electronic payments issued across the Internet

Exhibit II-1

Current/Planned Use of the Internet/Intranet (All Respondents)

Business Area	
Communication	72%
Advertising/Marketing	55%
Customer Service	33%
Human Resources/Payroll	21%
Sales	21%
Accounting/Finance	14%
Accounts Payable	11%

■ Use Within 6 Mths.
□ Currently Used

Percentage of Respondents

Source: INPUT
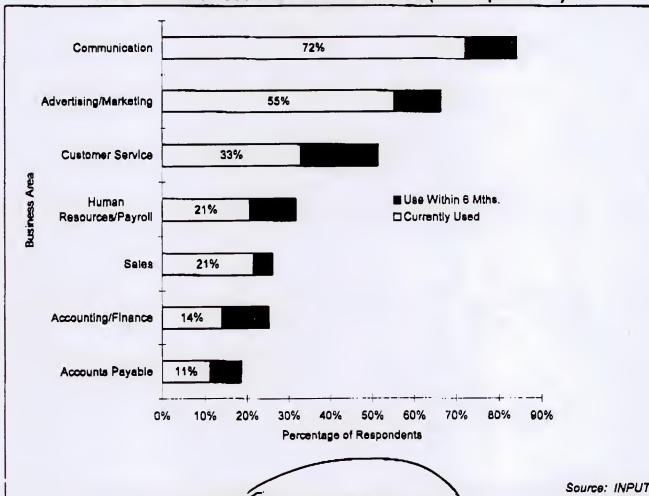
107 Respondents (71 who would consider S/390)

why is this here?

Within the S/390 customer base the greatest opportunity to increase the use of the S/390 as an Internet/Intranet application platform is in the application areas where there is low current activity — Accounts Payable, Accounting/Finance, Sales and Human Resources. These are the areas where there is time to develop a plan and to take it to the market.

Very few customers indicated any plans for using Internet technology within application areas specific to their industries.

The development of industry-specific applications based on Internet-technology is an area of opportunity for IBM. There is time available to plan and develop such applications prior to users being ready for this move.

B

Consideration of S/390 for Internet Applications

As seen in Exhibit II-2, 67% of existing S/390 users would consider *as* a platform for Internet applications.

Exhibit II-2

Consider S/390 as Internet Platform	Select S/390 as Internet Platform		
	No (%-age of Respondents)	Yes (%-age of Respondents)	Total
No	31%	2%	33%
Yes	19%	49%	67%
Total	50%	50%	100%

105 Respondents - Percentages are rounded

Many of the following charts contrast the responses on this basis so that the relative views of these groups becomes clear.

Reasons given when the user said that the company did not consider the S/390 and did not select the S/390 as the Internet platform include the following, in rank order:

- Cost

- Security concerns

- Overkill

- Using other platforms (e.g. NT)

- PC platform more mature

- Other uses for S/390

Exhibit II-3 shows the percentage of respondents who would and would not consider the S/390 within each of the four groups.

Exhibit II-3

	Consider S/390 as Internet Platform	
Group	No (%-age of Respondents)	Yes (%-age of Respondents)
Group 1 — Large installation with an Internet/Intranet	19%	81%
Group 2 — Large installation with planned Internet/Intranet	25%	75%
Group 3 — Smaller installation with an Internet/Intranet	50%	50%
Group 4 — Smaller installation with planned Internet/Intranet	44%	56%

105 Respondents - Percentages are rounded

Reasons given when the user said that the company would/did consider the S/390 and would select the S/390 as the Internet platform include the following, in rank order:

- Reliability/Availability

- Stability

- Expertise in S/390

- Security

- IBM Reputation

- Already have the S/390

Handwritten notes:
Large Sites more likely to consider S/390 than Small sites. Write this finding here and add to it as a key conclusion
Supportive quotes?
Is this also true for Selecting S/390?

C
Internet/Intranet Platform Selection Criteria

Respondents were asked to rate the importance of hardware and software selection criteria used to select Internet/Intranet applications. These criteria drive the choice of the hardware and software platform. Mean responses for all respondents are presented in Exhibit II-4.

Exhibit II-4

Product Selection Criteria - All Respondents

Selection Criteria	Rating of Importance (1=low, 5=high)
Security	4.7
Continuous Availability	4.6
Speed of Transaction Response	4.5
Handle Varying Workloads	4.3
Ability to Integrate with Applications and Data	4.2
Cost of Ongoing Operation	4.0
Cost of Deployment	4.0
Ability to Upgrade System	4.0
Vendor Reputation	3.8
Time for Deployment	3.7

Source: INPUT
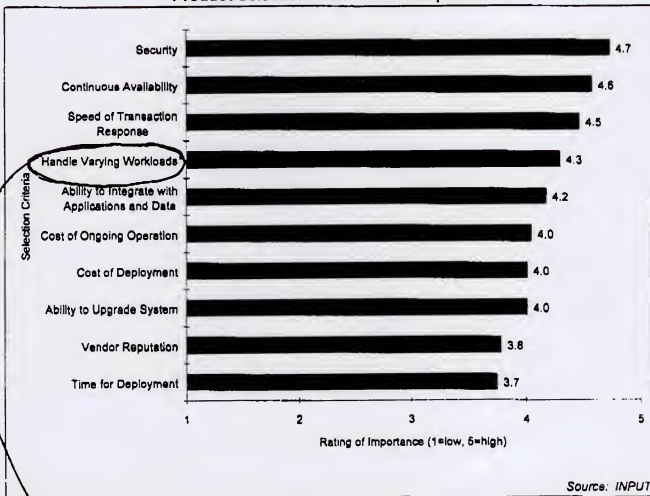
This is not an accurate substitution for the original text of "handle high xaction rate." Should use the original here and in Section IV

The capabilities of the S/390 were rated by respondents as to the suitability as an
Internet/Intranet platform. The Exhibit II-5 shows the differing views of those who
would consider the S/390 and those who would not consider this as an
Internet/Intranet platform.

Exhibit II-5

Capabilities of the S/390

This is not the
right data - it
is important, not
capability. Use
the lower bars
from V-3, V-4.

Capability of S/390 (1=Very poor, 5= excellent)

Source: INPUT
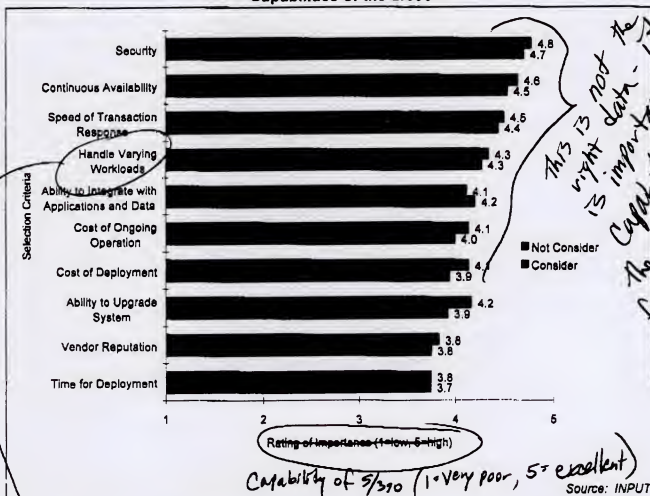
Although 33% of the sample would not consider the S/390, there is general
agreement regarding the capability of the platform.

Same as
prior page

II-6   © 1997 by INPUT. Reproduction Prohibited   YNIBM

D
Drivers and Inhibitors of Internet/Technology Usage

Exhibit II-6 presents the driving objectives to the implementation of Internet technology and the satisfaction in attainment at this point as reported by all respondents.

Exhibit II-6

Internet Drivers - Importance and Satisfaction

Exhibit II-7 gives the rating of potential inhibitors to the planning and
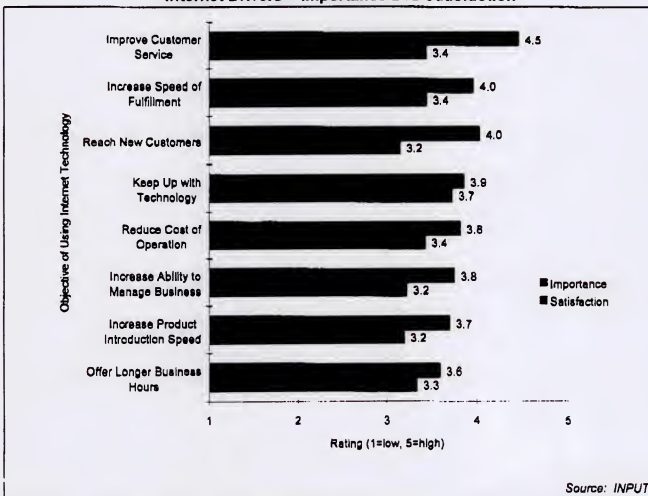implementation of the implementation of Internet technology.

Exhibit II-7

Potential Inhibitors - All Respondents

Potential Inhibitor	Rating
Lack of External Security	4.0
Lack of Internal Security	3.8
Lack of Development Skills	3.3
Lack of Development Tools	3.2
Network Cannot Handle Traffic	3.1
Decision Makers Not Internet Knowledgeable	3.1
Few Internet Software Packages	3.0
Decision Makers Not Convinced	3.0
No Continuous Availability	2.6

Rating of Impact (1=low, 5=high)

Source: INPUT
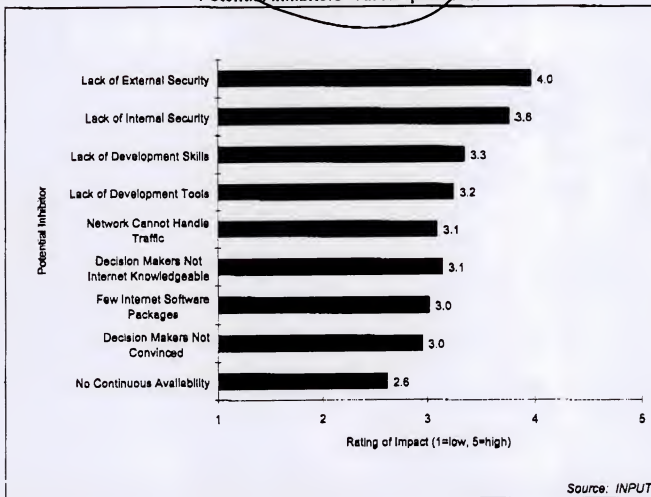
Security remains the major concern with regard to the Internet environment. The
security aspects of the S/390 must be highlighted for success in this market.

E

Status of Internet Application Deployment

One of the objectives of the study was to examine the S/390 customers' progress
towards implementing Internet and Intranet technology.

Respondents were asked to describe progress toward live implementation of a list of
8 Internet/Intranet applications. Exhibit II-8 presents the current status of the
applications and the stage of development at this time.

Exhibit II-8

Status of Internet/Intranet Applications - All Respondents
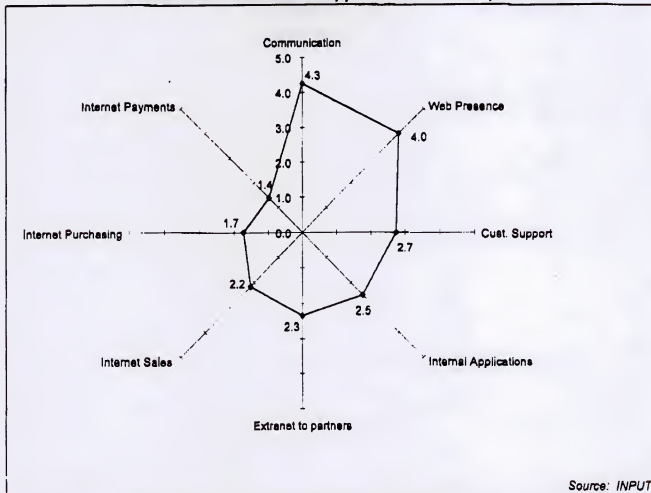
Source: INPUT

This chart shows the Users relative maturity in each of the application areas.

The "maturity" values were assigned to the various stages of usage based on the following scale:

- No Current Activity   — 1
- Considering Internet Use   — 2
- Developing Software   — 3
- Pilot Implemented   — 4
- Full Implementation   — 5

For all groups, Communications is the area in which users have most experience (average value 4.3) and use of payments was the lowest with a value of 1.4. The low

value of maturity for payments reflects the very low, or non-existent, use of Internet technology for inter-company payments.

The strong security features of the S/390 plus ability to integrate with multiple applications, as shown in Exhibit II-5, make the S/390 a good platform for Internet payment applications. This should be emphasized in the S/390 marketing messages.

F
Internet/Intranet Champions and Decision Makers

In the decision to move to Internet technology, one of the most important people within the company is the Internet champion. This is the person who will push projects along and keep the company moving forward in the use of the Internet. In roughly one-third of the companies interviewed, it is the CIO that is pushing the company towards Internet technology, Exhibit II-9.

Exhibit II-9

Internet Champion
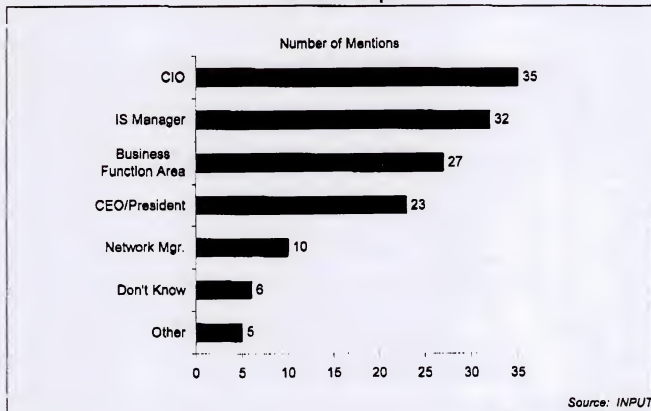
Number of Mentions

CIO	35
IS Manager	32
Business Function Area	27
CEO/President	23
Network Mgr.	10
Don't Know	6
Other	5

0   5   10   15   20   25   30   35

Source: INPUT

The IS department, the CIO and the IS Manager, are also the main positions involved in the planning and implementation of Internet strategy and the selection of

hardware and software products to be used. In about 50% of the respondent
companies, the IS department was the main decision maker,

Exhibit II-10

Product Selection Influence

Source: INPUT
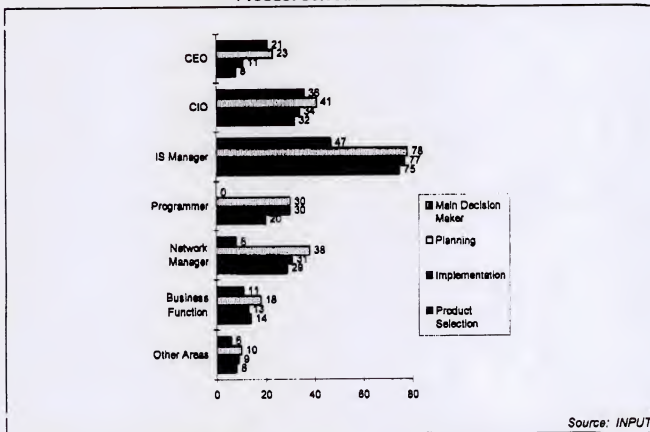
Exhibit II-10 may be slightly biased in favor of IS Manager involvement since IS was
the main department interviewed for this study.

G
S/390 Internet/Intranet Package Considerations

Exhibit II-11 presents the rating of importance of potential elements of an Internet offering of S/390 hardware and software, as reported by the total respondent group.

Exhibit II-11

Proposed S/390 Internet Package

Source: INPUT
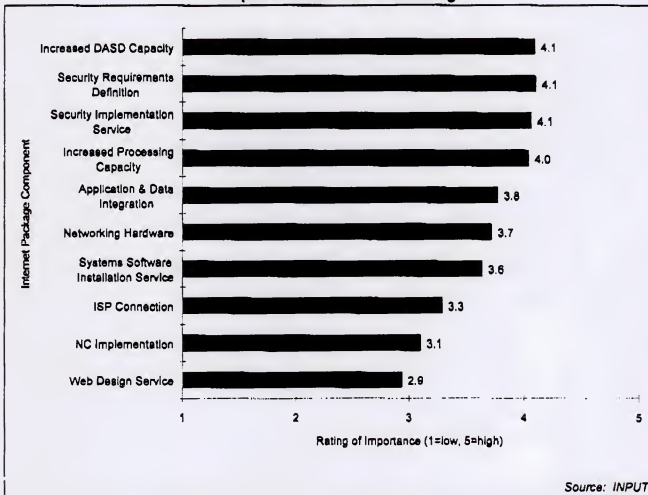
This shows clear indication of the features that should be highlighted (i.e. those with a rating of 4.0/4.1).

Those with a rating of below 3.5 will bring little benefit to the S/390 Internet/Intranet marketing activity.

H
Conclusions and Recommendations

Conclusions

Let's make sure these address the objectives

1. High proportion of users view Internet as related to PC/NT environment at this time

2. Cost and security are major issues

3. IBM must address those who will not consider S/390 — overcome this issue and other users will follow

4. The low Internet/Intranet "maturity" of many user means that there is still time to make significant impact on the S/390 customer base

5. Education is required so that the strength of the S/390 in relation to the criteria for Internet platform selection is promoted and explained to clients

6. It is more important to ensure the customers appreciate the potential of the S/390 than to create an optimum package. There are no outstanding features or potential components of a package. *Among those TESTED*

Recommendations

Let me propose a rewrite on the next page

1. Buyers Guide that presents fears and responses; confirms ability where S/390 already perceived as good

2. Education roadshow

3. Focus S/390 on transaction-oriented applications e.g. payments and order processing.

4. Demonstrate ability to be secure and high performance *(Cost and security)* *you said this in #1*

5.

Other ideas on how to do this?? — *There is a significant opportunity to differentiate S/390 from competition meaningfully on security, transaction rate, stability/reputation, and integration with existing applications and data*

Conclusions

1. Most customers ~~uses~~ have started to use Internet technology, but this is still at an early stage. Most current use is for communications and advertising. Few companies are now making, or planning to make, payments via the Internet.
   The low Internet/... #4 from your page 11-13.

2. Lack of security and lack of development skills and tools are inhibitors to the implementation of Internet technology.

3. Security, continuous availability, and speed and rate of transaction response are Key Criteria for Internet platform selection. S/390 was also rated very good on these criteria.

4. About two-thirds (67%) of customers interviewed would consider S/390 as an Internet platform and about half (49%) would select if for Internet applications. Large installations (7x%) were more likely to consider S/390 than Smaller installations (5x%). *(what about selecting?)*

5. Reliability/availability, stability, customer investment in S/390 skills, and security were advantages cited ~~in~~ S/390 for Internet use. *by those selecting*

<u>Conclusions cont'd</u>

6. Cost, Security concerns, Overkill, and preference toward other platforms (e.g. NT) are viewed as the inhibitors ~~to~~ selecting S/390 for Internet use.   by those not

7. your # 6.

To: roncd@us.ibm.com
From: Wilson Haddow <wh@input.com>
Subject: Wording of capabilities questions
Cc: Ponnwitz Joanne
Bcc:

Ron,

I have checked with Joanne re. the exact wording on the questionnaires for the S/390 project.

In question 6.2 (Rating of importance of criteria for product selection), the phrase used was
 "Ability to handle high transaction volume"

In question 6.3 (Rating of S/390 capability), the phrase used was:
 "Ability to handle varying workloads"

These two questions should have used the same wording. I know that you and I discussed the phrasing in one of our phone calls but unfortunately the questions have at some point become out of sync. However, given that the ability to handle a high transaction volume is a subset of the ability to handle a varying workload coupled with the capability ratings being consistently higher than the importance ratings for this question then I believe the damage is minimal.

I did not realize the error until your call this week as the version of the questionnaire in my files has the same phrasing in each question. I must have sent an incorrect version to Joanne prior to the interviews starting.

Wilson

Internet Maturity
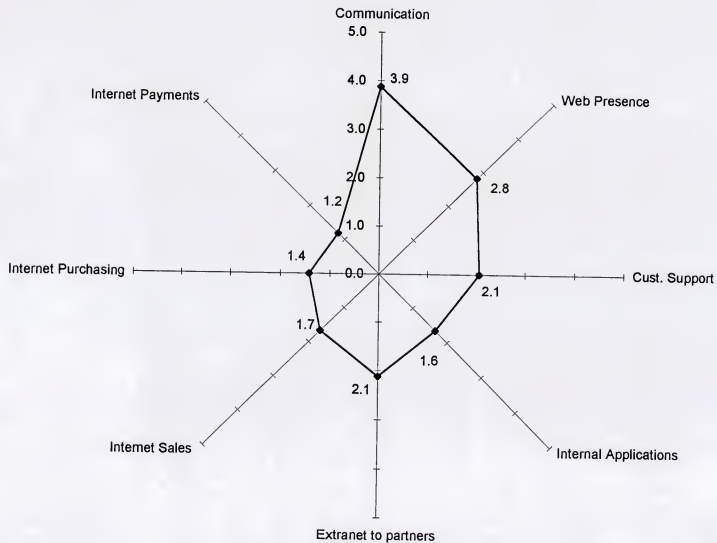
Communication 4.3
Web Presence 4.0
Cust. Support 2.7
Internal Applications 2.5
Extranet to partners 2.3
Internet Sales 2.2
Internet Purchasing 1.7
Internet Payments 1.4

Group 4 Maturity

Group 3 Maturity
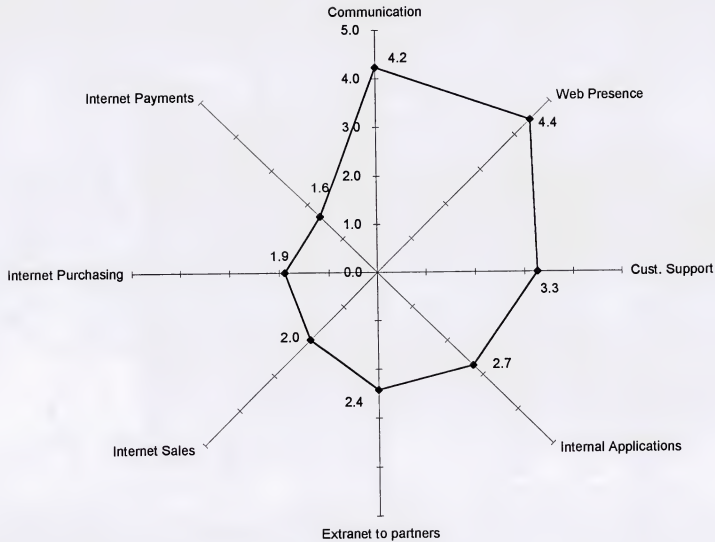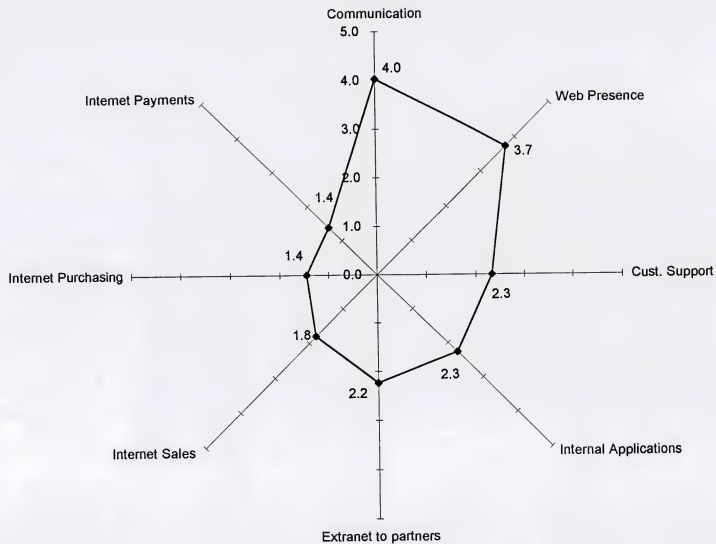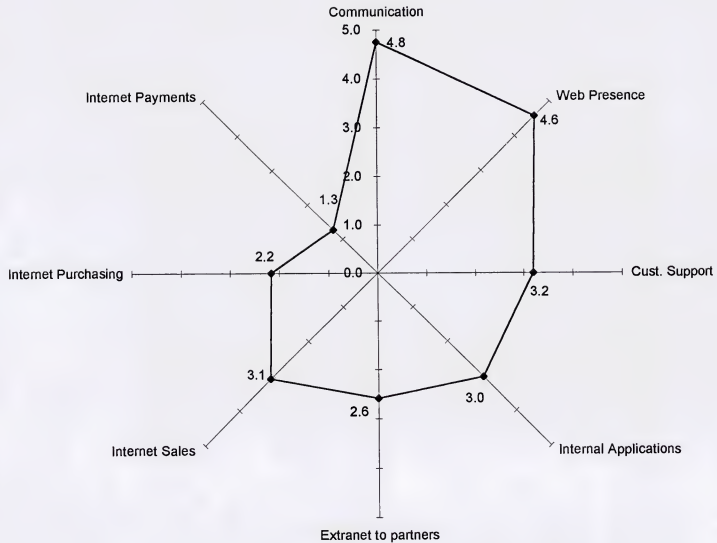
- Communication: 4.2
- Web Presence: 4.4
- Cust. Support: 3.3
- Internal Applications: 2.7
- Extranet to partners: 2.4
- Internet Sales: 2.0
- Internet Purchasing: 1.9
- Internet Payments: 1.6

Group 2 Maturity

Communication — 4.0
Web Presence — 3.7
Cust. Support — 2.3
Internal Applications — 2.3
Extranet to partners — 2.2
Internet Sales — 1.8
Internet Purchasing — 1.4
Internet Payments — 1.4

Group 1 Maturity

Joanne, I received them and would like to make just two requests. For the
overall sample, I would like to have the attributes ordered in terms of
decreasing importance. I would also like to have importance appear as the top
bar (dark color), and satisfaction appear as the bottom bar (light color) in
each couplet. Thanks and I look forward to receiving more.

With an eye on how this information can be used within IBM, there are two
fundamental analyses we need to produce. The first is relative to q. 6.3. If
we divide the sample into those that would select S/390 and those that would
not, we need to demonstrate an analysis leading to why/why not which points
toward steps IBM can take. I believe pages 6 and 7 of the questionnaire
contain plenty of information to use for this purpose.

The second analysis is to demonstrate how S/390 might be meaningfully
differentiated from competition relative to internet/intranet servers. Again,
I believe pages 6 through 8 contain the information with which to do this.

I would be happy to participate in the analysis work in any way that would be
of assistance to you (including keeping quiet and out of the way!). Just let
me know if I can help.

Ron Dombroski
Consulting Market Specialist
S/390 Division
522 South Rd   MS P124
Poughkeepsie, NY 12601-5400

(914) 433-3091   phone
(914) 432-9418   fax

roncd@us.ibm.com

	S/W	Intg	4W	Int. Staff (IT)	Ops Staff (Non IT)	
High Cost	24	17	12	36	12	(29)
	ME 3%					
Low Cost	33	7	5	50	4	(40)
		ME 4?				64

Cost Split :   #1   9   #

#2   17

#3   14

#4   17

#5   12
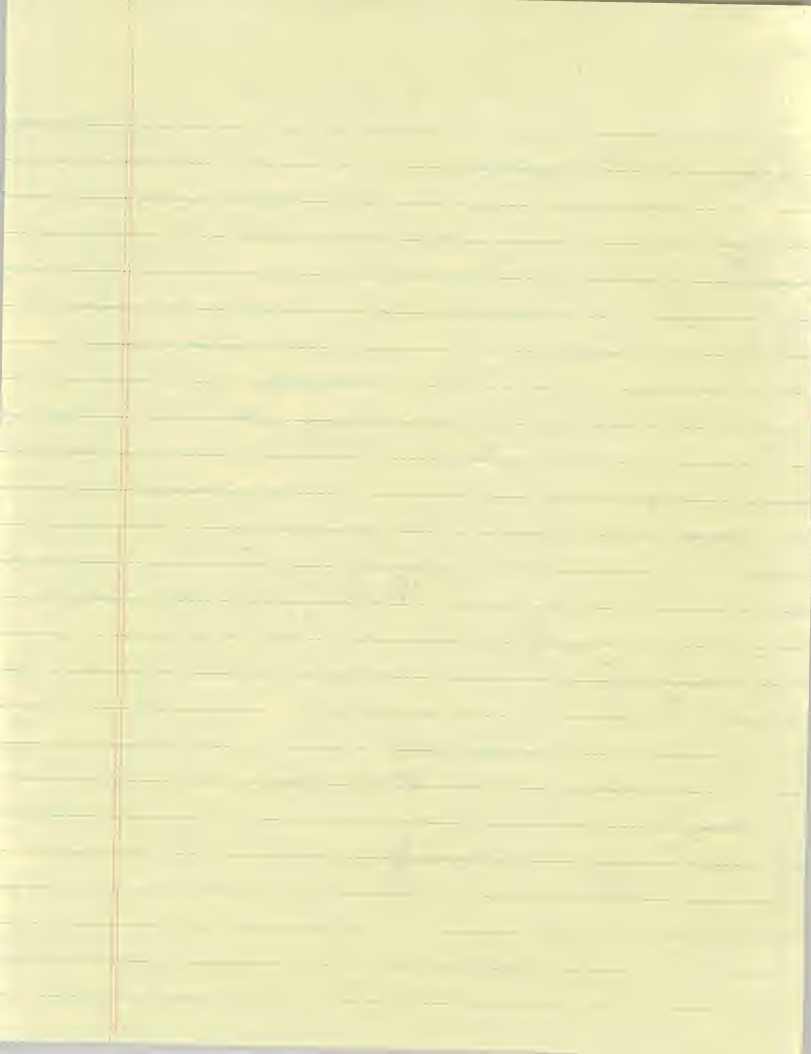
Advice for Vendors

Maturity of product

//// Availability of impl. assistance & training

///// Entry Demonstrate technical skills & support

// Documentation

/// Flexibility

Ease of use & implementation
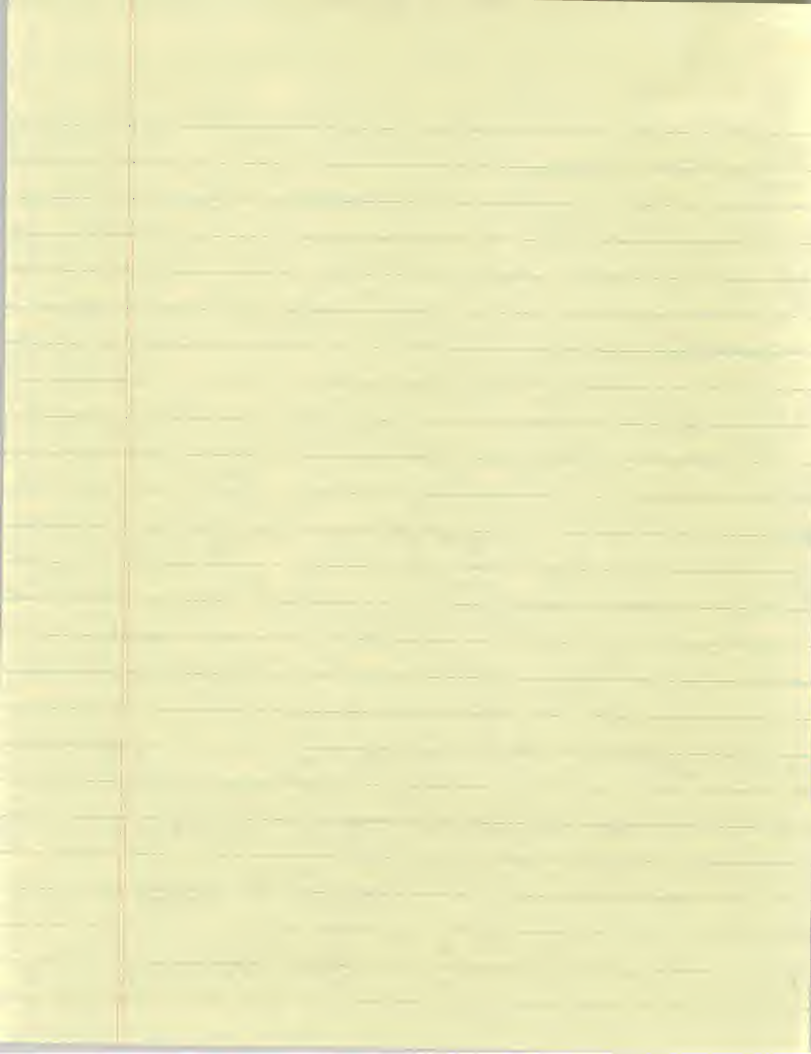
Large Customer IT Panel Survey
Wave # 6

S/390 Division Market Research

Current/Planned Network Computing

S/390 Establishments

Both US and Europe Show Growth Plans For NC

LCIP EMEA
Wave 6

Type of NC

U.S.

EMEA

A. ...To search for electronic content to support business operations — 76 / 74 — 72 / 65

B. ...To post a "home page" on a WWW server — 80 / 75 — 71 / 55

C. ...To exchange data with business partners — 72 / 70 — 66 / 54

D. ...Use NEA* in support of business — 56 / 58 — 48 / 38

E. ...Deploy a NEA* for customer use.... — 57 / 54 — 51 / 38

F. ...Implement an "intranet" — 68 / 64 — 62 / 38

G. ...Implement a formal strategy to leverage the Internet.... — 60 / 60 — 50 / 41

* NEA=Network Enabled Applications

Percent (0, 20, 40, 60, 80, 100)

Wave 6 (4Q96) ■ Currently 🁢 6 Months Plan ▨ After 6 Months
Wave 5 (2Q96) ■ Currently 🁢 6 Months Plan ▨ After 6 Months

Q C1: For each of the following activities (A through G), please tell me whether this is something your location currently does, plans to do within the next six months, plans to do sometime after the next six months, or has no plans at all to do this.

IBM Confidential

LCIPE62D.PRE-29

Network Computing: Web Server

S/390 Establishments

PC Servers Most Popular Choice as Web Server

Currently/Plan to Post Home Page

US 76

EMEA 72

Percent of Estabs

■ Current ▨ Plans

Choice of Web Server

U.S. - W6
- 53%
- 6%
- 6%
- 35%

U.S. - W5
- 44%
- 13%
- 6%
- 37%

Choice of Web Server

EMEA - W6
- 56%
- 9%
- 10%
- 25%

EMEA - W5
- 52%
- 12%
- 6%
- 30%

■ Mainframe ▦ Midrange/Mini ■ PC/PC Server ▧ UNIX/RISC

Q.C2: Current/Planned users: What is the primary platform you are using or
planning to use for your WWW Server?

2/97　　　　　　　　　　　IBM Confidential　　　　　　　　LCIPE62D.PRE-32

Network Computing: ES Data Access

S/390 Establishments

ES Data Access Important

Currently/Plan to Post Home Page

US — 76

EMEA — 72

0   20   40   60   80
Percent of Estabs

■ Current ▨ Plans

WWW Server Access to Mainframe Data

U.S.-W6 — 49
U.S.-W5 — 45

■ Very import. (5) ▨ Somewhat Import (3/4)

Of Estabs Currently/Plan to Post Home Page......

WWW Server Access to Mainframe Data

EMEA-W6 — 43
EMEA-W5 — 46

Percent

■ Very import. (5) ▨ Somewhat Import (3/4)

Q.C4: If you are posting or planning to post a "home page".... How important is it to have your WWW server have access to mainframe data?.....allowing customers to access order status e.g., or account balances. Use scale: 1(Not Important) - 5(Very Important)

SECTION C, NEW INSIGHTS

ASK EVERYONE:

C1.   Now, we're going to talk about the Internet and value added network providers, or VANs, such as
AT&T Global Network Services, IBM Global Network / Advantis, etc.

For each of the following activities, please tell me whether this is something your location currently
does, plans to do in the next six months, plans to do sometime after the next six months, or has no
plans at all to do this. **(DO NOT RANDOMIZE LIST. ASK FOR EACH.)**

  1   CURRENTLY DOES
  2   PLANS TO DO THIS WITHIN THE NEXT SIX MONTHS
  3   PLANS TO DO THIS SOMETIME AFTER THE NEXT SIX MONTHS
  4   HAS NO PLANS AT ALL TO DO THIS
  7   NOT APPLICABLE / NOT RESPONSIBLE FOR THESE ACTIVITIES
  8   DON'T KNOW **(DO NOT READ)**
  9   REFUSED **(DO NOT READ)**

a.   Access the Internet to search for electronic content to support business operations **(IF "NOT
APPLICABLE / NOT RESPONSIBLE," SKIP TO C7.)**

b.   Connect to the Internet to post a "home page" on a World Wide Web server

c.   Use the Internet or a VAN to exchange data with business partners

d.   Use the Internet or VAN to access a network enabled application in support of your business.
(IF NECESSARY, SAY: An application delivered via a network, typically by subscriptions,
for package tracking, travel reservations or similar activities)

e.   Deploy a network enabled application for your customers to use that is accessible via the
Internet or a VAN such as customer service or order entry

f.   Implement an "Intranet" or internal network, which uses Internet technology that is accessible
within your organization

g.   Implement a formal strategy to leverage the Internet for your organization

---

**ASK C2 AND C3 OF THOSE WITH 1-3 ON C1, ITEM "b."
ALL OTHERS SKIP TO INSTRUCTIONS ABOVE C4a.**

C2.   What is the primary platform you are using or planning to use for your World Wide Web server?

    1   MAINFRAMES
    2   MIDRANGE OR MINI-COMPUTERS
    3   PCs OR PC-SERVERS
    4   UNIX OR RISC WORKSTATIONS/SERVERS
    6   OTHER (SPECIFY) :_____
    7   NOT APPLICABLE
    8   DON'T KNOW
    9   REFUSED

C3.   How important is it that your "home page" on your World Wide Web server have access to
      mainframe data? For example, allowing customers to access order status or account balances.
      Please use a scale of 1 to 5 where 1 is "not at all important" and 5 is "very important."

NOT AT ALL IMPORTANT			VERY IMPORTANT		NA	DK	REF
1	2	3	4	5	7	8	9

ASK C4a OF THOSE WITH 1-3 ON C1, ITEM "e".
ALL OTHERS SKIP TO INSTRUCTION ABOVE C4c.

C4a. You indicated that you have or are planning to deploy a network enabled application for your
      customers to use that is accessible via the Internet or a VAN. What is the primary platform you are
      using or planning to use for this network enabled application? **(PROBE FOR ONE RESPONSE)**

    1   MAINFRAMES
    2   MIDRANGE OR MINI-COMPUTERS
    3   PCs OR PC-SERVERS
    4   UNIX OR RISC WORKSTATIONS/SERVERS
    6   OTHER (SPECIFY) :_____
    7   NOT APPLICABLE
    8   DON'T KNOW
    9   REFUSED

C4b. How important is it that this network enabled application have access to mainframe data? For
      example, customer service inquiries or order placement. Please use a scale of 1 to 5 where 1 is
      "not at all important" and 5 is "very important."

NOT AT ALL IMPORTANT			VERY IMPORTANT		NA	DK	REF
1	2	3	4	5	7	8	9

C4c. You indicated that you have or are planning to implement an intranet. What is the primary platform you are using or planning to use for your intranet server? **(PROBE FOR ONE RESPONSE)**

      1   MAINFRAMES

      2   MIDRANGE OR MINI-COMPUTERS

      3   PCs OR PC-SERVERS

      4   UNIX OR RISC WORKSTATIONS/SERVERS

      6   OTHER (SPECIFY) :_____

      7   NOT APPLICABLE

      8   DON'T KNOW

      9   REFUSED

1881 Landings Drive, Mountain View, CA 94043 (415) 528-6311
Fax (415) 961-3966

FAX TRANSMITTAL FORM

Date:	**March 21, 1997**	Confidential: Y/N
		Urgent: Y/N
To: (Name)	**Ron Dombroski**	
Tel/Location:	**914-433-3091**	Page: 1 of 8
Company:	**IBM System 390 Division**	
Fax Number:	**914-432-9418**	
From:	**Wilson Haddow**	
	wh@input.com	
Subject:	**Proposal for S/390 Research Project**	

Dear Ron,

Attached is INPUT's proposal for analysis of S/390 platform for Internet/Intranet applications.

We at INPUT believe we can add a great deal of value to this project because of:

- Our experience and knowledge concerning the Intranet and Internet market

- Our experience in having worked with IBM on similar projects in the US.

I look forward to discussing this with you and so please call me if you have any questions or require additional information.

Sincerely,

include audiotype of as many at surveys as possible.

Wilson Haddow
Vice President

Attachment

INPUT°

Proposal for Analysis of S/390 Platform for Internet/Intranet Applications

Objectives

To develop an initial understanding of:

- S/390 customers' progress towards implementing Internet and Intranet applications
- The key drivers behind the hardware and software infrastructure choices for Internet and Intranet applications
- Inhibitors, critical success factors and differentiators in the implementation of S/390 platforms supporting Internet technology

Benefits to IBM

- Gain improved understanding of S/390 customer usage of Internet technology
- Understand S/390 customer plans for platforms to support Internet technology
- Ensure an effective investment strategy for S/390 related to Internet and Intranet applications
- Evaluate customer satisfaction with current Internet application platforms
- Establish a profile of prospects for S/390 Internet platforms

Issues Addressed

INPUT will make best efforts to address the following issues related to the usage of S/390 as a platform for Internet and Intranet applications:

- What business processes, function and applications are being migrated to Internet technology?
- What are the business objectives driving these changes? How satisfied are users that these objectives being achieved?
- Who is initiating the changes and who is responsible for the implementation?
- What is the IT architecture being implemented to support these new applications?
- What are the hardware, software and services selection criteria being used for the Internet and Intranet projects? Who is involved in the selection process?
- What hardware and software platforms were considered and selected? What were the factors for and against the S/390?
- What customer needs remain unmet?
- What is the potential for a packaged solution including S/390 hardware, software and services? What must be included in such a package in order for it to be considered as a platform for Internet

and/or Intranet applications? What additional features and functions would users like to be offered in such a package?

- What are users' plans for the future of the Internet/Intranet IT infrastructure?

Scope and Methodology of the Project

Project Scope

The project focuses on the existing S/390 customer base.

Up to 100 customers will be interviewed regarding their experience and plans for migration to Internet technology. The interviewees will also include customers who do not yet use Intranets or the Internet for business applications.

Comprehensive telephone interviews will be held with IS executives who are responsible for planning and selection of Internet-related hardware and software platforms. These interviews would consist of quantitative and qualitative questions.

Methodology

The methodology that INPUT proposes using for this project is as follows:

1. Create a draft survey questionnaire.
2. Meet with IBM to review the questionnaire and to receive a briefing from IBM on the S/390 product family and market
3. INPUT will train the interviewers on those aspects of the S/390 market relevant to the Internet/Intranet market.
4. Conduct survey using names and contact information supplied by IBM
5. Tabulate and analyze the data tabulation
6. Prepare draft results and present to IBM
7. Prepare final report for delivery to IBM

Research Schedule

INPUT will complete the study within two months of the contract being signed.

At the end of week 1 of the study, INPUT will meet with IBM to review the proposed questionnaire and receive the S/390 briefing.

Qualifications

INPUT is highly qualified to conduct this work, having performed similar assignments for IBM and many other leading firms in the industry. An summary of some of the projects and a client case study are attached to illustrate examples of some of INPUT's experience.

This project will be led by Wilson Haddow, an INPUT Vice President, and the interview process will be managed by Joanne Ponnwitz. Biographies for Wilson and Joanne are attached. Other staff will be assigned to the project as required.

Fees

INPUT's professional fee for this project is $46,000 (excluding applicable taxes).

One half of this fee is payable on contract authorization and the remained on delivery of the final report.

Out-of-pocket expenses (primarily travel and report production) will be billed at the end of the project and are not expected to exceed 10% of the total professional fee.

This proposal will remain valid for thirty days, unless extended in writing.

Contract Authorization

To authorize the project as specified, please sign and return one copy of this proposal. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to IBM and an invoice for 50% of the professional fee will be sent. Payment should be made on receipt of this invoice. The remaining 50% plus out-of-pocket expenses will be invoiced and payable on submission of the final report.

AUTHORIZED BY IBM: ACCEPTED BY:
                                      INPUT

_____   _____

Name   Name

_____   _____

Title   Title

_____   _____

Date   Date

MARKET ANALYSES:

- Conducted customer satisfaction studies across multiple product lines for one of the largest producers of systems software.

- Assessed the acceptability of UNIX as a platform for a software company considering extending its products to new platforms.

- Studied the market position of the major suppliers to the real time operating system and tools market.

- Performed several studies on current and future networking software markets.

- Surveyed the needs, directions and platform ratings of ISVs for one of the largest manufacturers of specialized platforms.

- Reviewed the current and future competitive environment for a major DBMS supplier.

- Conducted primary research to assess the acceptability of using an object oriented software platform to produce maintainable/reusable code.

- Performed many studies in the CASE/applications development market (see separate listing).

- Have conducted many studies on market/product opportunities in many application software product segments. Through primary research identified needs, gaps, market size, growth, special opportunities, competitive environment, vendor strengths and weaknesses. Examples of segments studied:

  - Manufacturing/distribution (see separate listing)

  - Banking (see separate listing)

  - Insurance (see separate listing)

  - Federal government (see separate listing)

  - State/local government (see separate listing)

  - Financial planning and analysis software

  - Payroll/human resources

Planning and Implementing Client/Server Support Services

The Client

A worldwide supplier of IT products and services

Client Objectives

- To size the overall U.S. market for client/server-related support services
- To quantify size and growth rates by vertical market, customer size and need factors
- To identify the most-needed services -- current and future
- To understand the client's market position versus current and future competition
- To assess the regional differences
- To understand the relationship between products and services
- To transition from test to large scale rollout of the offering

INPUT's Role

Over a three month period, INPUT:

- Assisted in focusing and defining the client's objectives
- Developed and conducted a primary research plan
- Analyzed the quantitative and qualitative results of the research
- Presented findings to client management
- Advised on rollout implications

Client Benefits

As a result of this engagement, the client received actionable information covering all the client's original objectives.

The study produced additional, important findings, such as

- The study showed how the client could shape the market's direction.
- The client took action to change its perceived strengths and weaknesses in this market.
- The study greatly increased the client's understanding of how an existing product relationship can support the delivery of services. Changes were made to the implementation plan as a result.

The information from this study was critical input for the client in making extensive modifications to its previous tactical implementation plan.

Wilson Haddow
Vice President

PROFILE

CAPABILITIES

- Twenty years of international experience in the computer industry, including 15 years in consulting and computer services.

- With INPUT, Mr. Haddow is currently responsible for INPUT's research in the commercial market and manages INPUT's Market Analysis Program. Mr. Haddow was previously responsible for research in the Systems Integration, Professional Services and Outsourcing Information Systems programs.

BACKGROUND

- Most recently, Director of Marketing for UNIX International, where he focused on marketing and the software and skills requirements for UNIX-based systems within Data Centers.

- He served at Unisys, in their European Headquarters as well as in the US in a variety of roles, including application software consultancy and support, Professional Services Program Management and UNIX product marketing.

- Wilson's qualifications also include working with a European software and services company on sales and support of general business application packages, and the creation of Office Automation division for a computer manufacturer.

EDUCATION

- B.Sc., Mathematics, Strathclyde University, Scotland

JOANNE E. PONNWITZ
ASSOCIATE CONSULTANT

PROFILE

CAPABILITIES

- Ten years experience in research project administration including questionnaire design, data collection and data tabulation.

- Highly concentrated skill with application specific software tools for data administration and statistical analysis and project/personnel performance tracking.

- Significant contributor to technical report creation including user case studies, vertical market reports, IS vendor profiles and vendor line of business profiles for acquisition searches.

- Highly effective and efficient interviewer of key decision makers on both technical and nontechnical topics in the information services industry. Key interviewer on 15 major proprietary projects involving over 1,000 detailed interviews since joining INPUT.

BACKGROUND

- Directed Market Research Library for major aftermarket manufacturer.

- Directed research programs in-house and with vendor consulting firms.

- Functioned as an analyst/liaison between user community and the MIS department of a major manufacturer.

EDUCATION

- B.S., Psychology/Social Sciences, Syracuse University.

- M.A., Accounting/Statistics, Fairleigh Dickinson University, in progress.

>From roncd@us.ibm.com Tue Jun 24 17:05:53 1997
From: Ron Dombroski <roncd@us.ibm.com>
To: <joanne_ponnwitz@input.com>
Cc: <wh@input.com>
Subject: Status
Date: Tue, 24 Jun 1997 17:02:55 -0400

Joanne, thanks for your phone message containing project status. I would like
to speak to you by telephone on Thursday to discuss progress. I am requesting
this call as I will be on vacation beginning Friday through end of next week.
I would also like to plan a phone call for Tuesday, July 8, to catch up. Let's
plan for 9 AM for each call unless you suggest otherwise.   I will telephone
you. I am also looking forward to receiving the tapes. Thanks.

Ron Dombroski
Consulting Market Specialist
S/390 Division
522 South Rd MS P124
Poughkeepsie, NY 12601-5400

(914) 433-3091   phone
(914) 432-9418   fax

roncd@us.ibm.com

wwom

General

- acd, Billing, Frame
- sales / mktg, c/s
- applic dev.
- Customer DB / Records
- Schedu1 / Logic Invent
- Data analysis / query
- Payroll / HR
- Office famil
- mfg. operations, Prod control
- engineering
- indl. specific

Ins.

- Claims
- agency plmt.
- managd care.

Mfg

- distribution
- production plng.
- pld/ops.
- Enviroment health / Safety

gov't

- Engineering — gov't
- fin + admin / HHS / public safety /
- Aerospace gov't systms / postal / publicworks /
- Defense + Nat Security

Telecom

- Enhanced Network svcs.
- network ops.
- Directories
- cus services + billing

Banking

Corp.	Retail
mortgage	Check / item processing
Trust	trading systems

Distribution

- Store ops   Merchandising
- cust/svcs.   nonstore shopping
- Supply chain mgmt.

Health

- Clinical Info   Info Infostructure
- Care delivery apps
- Departmental

Author: Joanne Ponnwitz at INPUT
Date: 6/5/97 9:48 AM
Priority: Normal
TO: roncd@vnet.ibm.com at Internet
CC: Wilson Haddow at INPUT
Subject: IBM test
------------------------------ Message Contents ------------------------------------

Ron:

We have started calling the fourteen people on your list, results
follow.

2 - fifteen minutes is too long, will not complete

1 - information is only available in Sweden, call there

1 - company policy, will not answer any questions

It is important that IBM send the letter to "open the door" for this
project, if we want to complete it quickly. Normally, we need 6-7
times the number of desired completes for the original sample. This
questionnaire may be a bit long if they are saying 15 minutes is too
long. We will continue to try to reach the rest of the names. I'll
update you again on Monday.

Joanne

Ron / Kathy / Rod

1. Product offerings

2. Survey Objectives

3. 40,000 systems in 30,000 sites

4. Where is web initiative?

5. Relationship between business function | Push - Pull - Educate
   and IS dept - who controls/influences
   what? | Base vs New Business

6. Majority of S/390 sites have over 1000 | Profile of base companies.
   employees.

7. Do businesses believe that Web is
   involved in mission-critical processes
   and applications?

8. How to define mission-critical

9. Internal vs External

10. Insurance / Banking / Travel / Mfg (D+P) /
    Govt (S+F) Retail / Health / Telecomm.

12. Role of e-commerce
    - EDI vs non-EDI c/w ?

13. Get the selection from last questionnaire.

14. Requirement for compute power associated w/ internet apps.

15. Market Segmentation.
    ① Focus on the base
    ② 80% of revenue from < 20% of Sos.

	Enabled w/ web server	other platform implementers	Virgins
	5	10	85
Large			
Small Business			
	how to move forward	1/2 to move to 390	

16. Inhibitors — Technical
                  Non-technical

17. Just U.S. — use Tracking Survey Wave #6.
              — now doing wave #7

1200 sample size   (9000 sites)
Most intensive at large sites. (defined in terms of
MIP's in largest machine).

18. Analyze by category — 2, 3, 4, 4A, 5, 5A
                    — current readiness vs dd.

19. Need to understand changes between home page usage
    vs data access usage

Cut by size   2 - 4
               4A - 5A

                    Size
           2 - 4   4A - 5A
Intranet
Not Intranet

Is 390 used ?
        Y

     N ⟹ why not?

Topics -

Business

Technology

S/390

Actions

INPUT	ITEM
Draft questionnaire	Fax / letter re. survey
	List of wltt messages
	- h/w
	- s/w
	- services
	List of h/w or s/w features to
	be tested.

INPUT®

FAX TRANSMITTAL FORM

Date: 5/30/97

Confidential: Y / N
Urgent: Y / N

To: Name: Ron Dombroski

Tel./Location: 914-433-3091

Co.: IBM

Page: 1 of 9

Fax No: 914-432-9418

From: Name: Wilson Haddow

File: Chron
      Contact
      Other:

Subject: S/390 Internet Questionnaire

Ron, here is a copy of the updated
questionnaire following our discussion.

I have sent this version by e-mail
to Joanne.

I have asked Joanne to call you regarding
what we offer in-business. We did
not resolve this at our meeting.

Call me with any questions.

Wilson

S/390 Internet/Intranet Questionnaire

1. Business areas in which Internet technology is (or is planned to be) implemented?

1.1 Are you are you using , or planning to implement within the next 6 months, any **Internet** applications? Y/N____
      Are you are you using , or planning to implement within the next 6 months, any **Intranet** applications? Y/N____

   [If no plans for implementation within 6 months then terminate interview.]

1.2 Please identify the business areas in which these applications are, or will be, used?
[All companies should be asked about the General Business Areas plus the industry most applicable to them]

Business Application Areas	Currently used (Y/N)	Will be used within 6 months (Y/N)
General Business Areas		
Accounting & Finance		
Sales		
Advertising and Marketing		
Accounts Payable		
Customer Services		
Communication (e.g. email or groupware)		
Human Resources/Payroll		
Other		
Banking & Finance		
Retail Banking		
Wholesale Banking		
Mortgages		
Trust Funds		
Check/Item Processing		
Trading Systems		
Other		
Distribution Industry		
Store Operations		
Distribution Services		
Supply Chain Management		
Other		
Health Care		
Clinical Information		
Care Delivery Applications		
Information Infrastructure		
Other		
Insurance		
Claims Processing		
Agency/Distribution Systems		
Managed Care		
Other		

Business Application Areas	Currently used (Y/N)	Will be used within 6 months (Y/N)
Manufacturing		
Production Planning		
Manufacturing and Production Operations		
Distribution		
Other		

Telecommunications		
Network Services		
Directory Services		
Customer Services/Billing		
Other		

Comments

2. Internet Implementation Drivers and Inhibitors

2.1 Internet Drivers

Please rate, on a scale of 1-5 (1=low and 5=high), the **importance** of each of the following objectives when implementing Internet technology. If you are already using Internet technology, would you also rate your level of **satisfaction** with achieving these objectives.

Objective	Importance Rating (1-5)	Satisfaction Rating (1-5)	Comments
Keep up with latest technology			
Reduce costs of operation			
Increase speed of fulfillment			
Reach new customers			
Increase ability to manage business			
Increase speed of introduction of new products and services			
Improve customer service			
Offer longer hours when "open for business"			
Other			

Please comment on areas of low satisfaction (i.e. rated as 1 or 2).

2.2 Internet Inhibitors

Please rate , on a scale of 1-5 (1=low and 5=high) the **impact** of each of the following potential inhibitors to planning and implementation of Internet technology.

Inhibitors	Impact Rating (1-5)	Comments
Lack of internal computer security	4-3	3.8
Lack of security between company and outside world	3	4.0
Network unable to handle increased traffic		3.1
Key decision makers not familiar with Internet/Intranet technology		3.1
Lack of appropriate development skills		3.3
Lack of development tools		3.2
System not continuously available		2.6
Lack of Internet application packages		3.8
Key decision makers not convinced of Internet/Intranet technology value or payback		3.0
Other		

Comments

3. Timing and initiation of use of the Internet

3.1 What is the most **important criteria in your decision of when** to start using Internet technology for business applications?

Who is the **Internet champion** in your company? Check (√) the position with main proponent of the Internet.

Position	Internet Champion	Comments
CEO		
CIO		
IS Manager		
Network Manager		
Business Function Personnel Function: Position:		
Other		
Other		

4. Status of Use of Internet/Intranet Applications

For each of the following categories of Internet/Intranet applications, please indicate your company's **progress** towards live implementation with a check mark (√) in the appropriate box

Type of Application	No Current Activity	Considering Internet Use	Developing Software	Pilot Implemented (s)	Full Implementation
Communication (e.g. e-mail, group-ware)	1 4	2 12	3 6	6 14	5 68
Web Presence/Marketing (e.g. display of product information on a web site)	6 12	7 10	8 8	9 13	10 63
Internet Sales to your customers	26 45	27 19	28 6	29 10	30 11
Internal business applications (e.g. HR, accounting, planning)	16 41	17 22	18 10	19 14	20 18
Internet Purchasing (including EDI on Internet) by your company	31 57	32 30	33 6	34 7	35 3
Internet Payments by your company	36 74	37 19	38 3	34 3	40 1
On-line customer support or self-help	41 24	42 34	43 10	44 14	45 21
Other ~~_____~~	21 37	22 31	23 9	24 9	25 15

Comments on status of use of Internet technology

5. Description of Internet/Intranet IT Infrastructure

What is the IT architecture being used to support these new applications?

5.1 Please describe the **mix of hardware and software** that you are using to implement these Internet and Intranet applications. Comment on the differences in hardware/software combinations at each level (e.g. data center, enterprise server, departmental server, desktop.

Level 1 (Data Center)

Level 2 (Enterprise or Departmental Server)

Level 3 (Desktop including use of PCs and/or Network Computers)

5.2 Which of the **hardware and software platform components** were purchased specifically for use with the Internet and which are primarily used for other non-Internet applications? Please answer Yes (Y) or No (N) as appropriate

Platform Components	Purchased specifically for Internet/Intranet	Primarily used for other applications

Hardware:
  Manufacturer (_____)
  Model (_____)		

Hardware:
  Manufacturer (_____)
  Model (_____)		

Operating System
  Type (_____)
  Version (if applicable) (_____)		

Operating System
  Type (_____)
  Version (if applicable) (_____)		

Systems Management Tools
  Name (_____)
  Version (_____)		

Systems Management Tools
  Name (_____)
  Version (_____)		

Web Server Software
  Name (_____)
  Version (_____)		

Web Server Software
  Name (_____)
  Version (_____)		

Application Software Products
  Name (_____)
  Version (_____)		

Application Software Products
  Name (_____)
  Version (_____)		

Other		
Other		

Comments on technology used for the Internet

6. Product Selection

6.1 Decision makers

Please rate the **degree of influence** of the following people in each area of:

- Planning Internet strategy
- Implementation of Internet strategy
- Selection of the hardware and software products for Internet applications

The rating should be on a scale of 1 to 5 where 1= not involved and 5 = key decision maker.

Position	Influence in planning	Influence in implementation	Influence in product selection	Comments regarding role or influence
CEO				
CIO				
IS Manager				
Programmer				
Network Manager				

Business Function Personnel
  Function:
  Position:				

Other				
Other				

General comments

6.2 Criteria for Product Selection

Please rate the **importance** of each the following hardware and software selection criteria for Internet/Intranet applications on a scale of 1-5 (1= not important and 5 = very important).

Selection Criteria	Rating of importance	Comments		
		0 0	*1 0*	*1 1*
Continuous Availability		4.6	4.3	4.6
Speed of transaction response		4.4	4.4	4.5
Ability to handle varying workloads		4.3	3.9	4.3
Security		4.7	4.5	4.8
Cost of deployment		4.2	3.6	4.0
Cost of ongoing operation		4.2	3.8	4.0
Time for deployment		3.7	3.7	3.8
Ability to upgrade system		4.2	3.9	4.0
Ability to integrate with existing applications and data		4.1	3.8	4.2
Vendor Reputation		3.9	3.8	3.8
Other important criteria (_____)				
Other important criteria (_____)				

6.3 Using an S/390 platform

Did (or would) you consider the S/390 as a platform for Internet/Internet applications and did (or would) you select it? Please answer Yes or No

	Yes / No	Reason for your choice	
		YES	*NO*
Did /would you **consider** a S/390 platform for Internet applications?	*Yes = 1* *No = 0*	*73*	*35*
Did/would you **select** a S/390 platform for Internet applications?	*Yes = 1* *No = 0*	*54*	*42*

30% NEITHER CONSIDER NOR SELECT

What do you think are the particular **advantages** of using the S/390 as an Internet/Intranet application platform?

What do you think are the particular **disadvantages** of using the S/390 as an Internet/Intranet application platform?

For each of the following criteria please rate, on a scale of 1-5 (1= very poor and 5 = excellent), **the capability of the S/390** for use as an Internet/Intranet applications platform.

Criteria	Rating of capability	Comments		
		0 0	*1 0*	*11*
Overall capability of S/390		*4.3*	*4.3*	*4.3*
Continuous Availability		*4.9*	*5.0*	*4.7*
Speed of transaction response		*4.6*	*4.4*	*4.4*
Ability to handle varying workloads		*4.4*	*4.3*	*4.6*
Security		*3.9*	*4.3*	*4.4*
Cost of deployment		*2.7*	*3.2*	*3.6*
Cost of ongoing operation		*3.0*	*3.1*	*3.5*
Time for deployment		*3.1*	*3.6*	*3.5*
Ability to upgrade system		*3.9*	*3.6*	*4.1*
Ability to integrate with existing applications and data		*3.5*	*3.8*	*4.2*
Vendor Reputation		*4.4*	*4.4*	*4.5*
Other important criteria (include any additional criteria identified in question 6.2) (_____)				
Other important criteria (include any additional criteria identified in question 6.2) (_____)				

7. S/390 Internet Packaging

Assuming you were to consider a package of S/390 hardware, software and services as a platform for Internet and/or Intranet applications, then what would you require to be included in the package?
Please rate on a scale of 1 to 5 (where 1=not required and 5=essential) the **importance** of each of the following as elements of a S/390 Internet/Intranet package.

Proposed Package Element	Rating of importance	Comments		
		00	10	11
Increased processing capacity		4.1	4.2	4.0
Increased DASD capacity		3.9	3.9	4.3
Implementation of IBM Network Computers (NCs)		3.0	3.1	3.1
Networking Hardware (e.g. Routers and Switches)		3.5	3.6	3.8
Connection to an Internet Service Provider		3.1	3.7	3.3
Services to install and enable the new systems software		3.5	3.8	3.8
Services to design Web pages and structure		2.6	3.3	3.1
Services to provide links to existing applications and data		3.4	4.0	3.9
Services to define security requirements		3.8	4.4	4.2
Services to implement security requirements		3.7	4.4	4.2
Other (_____)				
Other (_____)				

8. Do you have any additional comments that you wish to make regarding the use of Internet and Intranet applications or the role of S/390 an Internet application server?

Many thanks for your assistance in the survey

INPUT

1881 Landings Drive
Mountain View, CA 94043-0848

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Main: (415) 961-3300
Fax: (415) 961-3966

wh@input.com
http://www.input.com

Wilson Haddow

Ron — NC

- &

- Can't willing to select

	Y	N	O	
11,	15	2	1	
15	16	3		2
15	10	2		3
12	3	3		4

$$\frac{53}{44} = \overline{10}$$

	Y	N	
1	42	58	Raw #'s
2	48	52	%
3	60	40	
4	80	20	
	50	50	

Gofer #'s

They. on to why?

FRANKFURT • LONDON • NEW YORK • PARIS • SAN FRANCISCO • TOKYO • WASHINGTON, D.C.

11 — 7
i5/N

	Group 1		Group 2		Group 3		Group 4	
0/0	LHT HTT	5	LHT II	7	LHT LHT	10	LHT II	7
0/1		—			1	1	4 1	1
1/0	ii	2	I III	4	II	2	4 III	3
1/1	LHT LHT LHT LHT LHT LHT	16 / 23	LHT LHT LHT LHT	20 / 31	LHT LHT	10 / 23	LHT LHT	5 / 16
0/—			1	1	II	2		
—/0								
1/—	IIII	4	II	2	I	1	II	2
—/1								
—/—	i	1			I	1		
		28		34		27		18

%	GRP 1	GRP 2	GRP 3	GRP 4
0/0	0/0 22	23	43	44
0/1	0/1 —	—	4	6
1/0	1/0 9	13	10	19
1/1	1/1 69	64	43	31
	Y N	Y N	Y N	Y N
	70 30	65 35	47 43	37 63

Wilson, per your request, here is the (lengthy) IBM party line on
server consolidation vs server integration:

Distributed, client/server customers are realizing that along with
benefits of ease of access of information come problems of systems
management, security, availability, and scalability. These problems are
being solved by the market trend called many different names - "server
consolidation", "server re-integration", "centralization", and "server
integration". In order to address the entire problem, the S/390
Division is focusing on an integration solution, Server Integration.
Server Integration encompasses (1) the capability of consolidating
servers and server locations to reduce administration costs and
increase data integrity and access. To gain control over the distributed
systems management problems, (2) the deployment, administration,
availability, and security of the entire computing environment can be
handled by S/390 advanced suite of system management/security products
and participation in all management platforms.   To gain efficiencies in
data access and exploit existing core applications, Server Integration
also provides the ability to (3) integrate applications and data
throughout the enterprise into single business processes.

S/390 Server Integration:
1. Consolidation of servers and server locations
   Customers need to reduce the complexity of their server network by
   reducing the number of physical locations and the number of servers.
   S/390 provides an open platform for centralizing workload for gains
   in cost and operations efficiency, security, availability, and scale.

2. Systems Management and Security
   Customers require an end-to-end view of their enterprise
   infrastructure to achieve better control over their resources and
   applications.   To manage this infrastructure, System Management
   products must provide that end-to-end view capable of managing the
   disciplines of deployment, administration, security, and
   distribution.

3. Business Process Automation
   Customers can further exploit cost effective measures by integrating
   existing core applications, new applications, and data throughout
   the enterprise.   Instead of rewriting or re-engineering vital, core
   applications, S/390 provides the capability to define automated
   business processes that execute applications/data from anywhere in
   the enterprise through distributed transaction processing.

INPUT

Wilson Haddow

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Fax: (415) 961-3966

wh@input.com
http://www.input.com

Ibm   Ron

all all   3772

Draft of exec summy.

  leave off 2-2 & 2-3

    " 2-5 (show all responses)

    " 2-11 - proposed package

Send to Kathy McGettrick
    fax.   3133
                Kathy mcg ourils.com.
Provide apps resny or systems

INPUT

Wilson Haddow

1881 Landings Drive
Mountain View, CA 94043-0848

Direct: (415) 528-6311
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wh@input.com
http://www.input.com

51 WYMPH ROAD

Lagrangeville NY 12540

Set Ddir.

No signature. req'd.

914 - 223 - 3867

① Powerpoint charts
② Questionnaire

INPUT®

1881 Landings Drive
Mountain View, CA 94043-0848
Tel. (415) 961-3300
Fax (415) 961-3966

FAX TRANSMITTAL FORM

Date: 9/15/97

To: Name: KATHY McGESTRICK

Tel./Location: 914 - 433 - 3133

Co.: IBM - S/390 MARKETING

Fax No: 914 - 432 - 9418

From: Name: WILSON HADDOW

Subject: S/390 Analysis - Thankyou Package

Confidential: Y / N
Urgent: Y / N

Page: 1 of 11

File: Chron
Contact
Other:

Kathy, Here is the draft of the executive summary that will be used for the Thank You Package.

This will be sent, plus a covering letter, to all the people interviewed for the study. (107 users in total).

Should the letter be from Input or from IBM?

Please review the draft and let me know of any changes.

Regards
Wilson

ADM 341/01 8/93

Executive Summary

This study (Analysis of S/390 Platform for Internet/Intranet Applications) examined S/390 customers' progress towards implementing Internet and Intranet applications. Other areas addressed by the study include key drivers behind the hardware and software infrastructure choices for Internet and Intranet applications, and the capabilities of the S/390 platform to support these Internet applications.

This summary provides a top-level analysis of the findings of the study and key conclusions.

A

Current and Planned Use of Internet/Intranet Applications

Most users have started to use Internet technology. However, this is still at an early stage (i.e. used predominately for communication).

Few companies are making, or planning to make, payments via the Internet.

Exhibit 1 shows the percentage of companies using Internet/Intranet applications of differing types. Respondents were asked to identify all the business areas in which Internet/Intranet applications are or will be used.

Most companies are still relative novices in their use of Internet technology. This is illustrated by the low percentage (under 25%) of customers using the Internet for more "sophisticated" applications such as Sales and Accounting.

For most organizations, the evolution of application types is:

1. Access — email communication

2. Presence —— advertising via creation of a home page

3. Operation —— use of internally focused applications (e.g. Human Resources) and/or "passive" (non-transaction oriented) applications such as on-line availability of manuals

4. Transaction —— use of applications requiring a 2-way flow of transactions across an Internet/Intranet (e.g. order systems)

5. Payments —— electronic payments issued across the Internet

Exhibit 1

Current/Planned Use of the Internet/Intranet

107 Respondents

The greatest opportunity to increase the use of Internet/Intranet applications is in the application areas where there is low current activity —— Accounts Payable, Accounting/Finance, Sales and Human Resources. These are the areas where plans are just being made for system development.

Very few customers indicated any plans for using Internet technology within application areas specific to their industries.

B

Internet/Intranet Platform Selection Criteria

Respondents were asked to rate the importance of hardware and software selection criteria used to select Internet/Intranet applications. These criteria drive the choice of the hardware and software platform. Mean responses for all respondents are presented in Exhibit 2.

Exhibit 2

Product Selection Criteria

Selection Criteria	Rating
Security	4.7
Continuous Availability	4.6
Speed of Transaction Response	4.5
Handle High Transaction Rate	4.3
Ability to Integrate with Applications and Data	4.2
Cost of Ongoing Operation	4.0
Cost of Deployment	4.0
Ability to Upgrade System	4.0
Vendor Reputation	3.8
Time for Deployment	3.7

Rating of Importance (1=low, 5=high)

Source: INPUT

Margin of error: 0.1

It is unusual to obtain an average rating of over 4.5 or higher, on a scale of 1-5, in a survey.

The high ratings for security, availability and transaction response rate criteria indicate that these are extremely important points.

The capabilities of the S/390 were rated by respondents as to its suitability as an Internet/Intranet platform. Exhibit 3 shows the mean ratings of respondents of the capabilities of the S/390 as an Internet/Intranet platform.

Exhibit 3

Capabilities of the S/390

Selection Criteria	Capability of S/390 (1=very poor, 5=excellent)
Security	4.3
Continuous Availability	4.8
Speed of Transaction Response	4.5
Handle Varying Workloads	4.5
Ability to Integrate with Applications and Data	3.9
Cost of Ongoing Operation	3.3
Cost of Deployment	3.3
Ability to Upgrade System	4.0
Vendor Reputation	4.4
Time for Deployment	3.3

Source: INPUT

Margin of error: 0.1

Although there are some differences between the ratings of importance for the various criteria and the ratings of S/390 capabilities, most respondents indicate there is a good overall match. This match is especially true for the criteria rated most highly in importance.

C

Drivers and Inhibitors of Internet/Technology Usage

Exhibit 4 presents the objectives driving the implementation of Internet technology and the satisfaction in attainment at this point as reported by all respondents.

Exhibit 4

Internet Drivers - Importance and Satisfaction

Margin of error: 0.1

The relatively low ratings of satisfaction with achievement of objectives compared with importance of the Internet drivers is consistent with other studies that INPUT has conducted in the Internet market.

The primary cause of the shortfall is the short lifespan, and relative immaturity, of applications in this part of the market.

Exhibit 5 gives the rating of potential inhibitors to the planning and implementation of Internet technology.

Exhibit 5

Potential Inhibitors to Internet Technology Implementation

Margin of error: 0.1

Security remains the major concern with regard to the Internet environment — this an area where the S/390 was highly rated.

D

Status of Internet Application Deployment

One of the objectives of the study was to examine progress towards implementing Internet and Intranet technology.

Respondents were asked to describe progress toward live implementation of a list of 8 Internet/Intranet applications. Exhibit 6 presents the current status of the applications and the stage of development at this time.

IBM Confidential

Exhibit 6

Status of Internet/Intranet Applications

Source: INPUT

This chart shows the users relative maturity in each of the application areas.

The "maturity" values were assigned to the various stages of usage based on the following scale:

- No Current Activity — 1

- Considering Internet Use — 2

- Developing Software — 3

- Pilot Implemented — 4

- Full Implementation — 5

Communications is the area in which users have most experience (average value 4.3) and use of payments was the lowest with a value of

1.4. The low value of maturity for payments reflects the very low use of Internet technology for inter-company payments.

The strong security features of the S/390 plus ability to integrate with multiple applications, as shown in Exhibit 3, make the S/390 a good platform for Internet payment applications.

E
Internet/Intranet Champions and Decision Makers

In the decision to move to Internet technology, one of the most important people within the company is the Internet champion. This is the person who will push projects along and keep the company moving forward in the use of the Internet.

In roughly one-third of the companies interviewed, it is the CIO that is pushing the company towards Internet technology, Exhibit 7.

Exhibit 7

Internet Champion

Internet Champion	Number of mentions
CIO	35
IS Manager	32
Business Function Area	27
CEO/President	23
Network Mgr.	10
Don't Know	6
Other	5

Number of mentions

Source: INPUT

The IS department, the CIO and the IS Manager, are also the main positions involved in the planning and implementation of Internet strategy and the selection of hardware and software products to be used.

IBM Confidential

In about 50% of the respondent companies, the IS department was the main decision maker,

Exhibit 8

Product Selection Influence

Category	Main Decision Maker	Planning	Implementation	Product Selection
CEO	21	23	11	8
CIO	36	41	34	32
IS Manager	47	78	77	75
Programmer	0	30	30	20
Network Manager	8	38	31	29
Business Function	11	18	13	14
Other Areas	6	10	9	8

Number of mentions

Source: INPUT

Exhibit 8 is believed to be biased in favor of IS Manager involvement since IS was the main department interviewed for this study.

F
Conclusions

Conclusions

1.   Most customers have started to use Internet technology, but this is still at an early stage. Most current use is for communications and advertising.

2.   Few companies are now making, or planning to make, payments via the Internet.

3.   Lack of security and lack of the development skills and tools are key inhibitors to the implementation of Internet technology.

4.   Security, continuous availability, and speed and rate of transaction response are key criteria for Internet platform selection. S/390 was rated very highly on these criteria.

5.   The Internet/Intranet environment should be considered as a multi-platform and not a single-platform environment.

---------------------------------- Message Contents -----------------------------------

Here are our comments, in prep for the telephone call.

Q1. Should not limit this to Internet only. Should be Internet
     of Intranet. But some of the questions in the survey, like
     Q1 better lend themselves to Internet, rather than Intranet.
     Perhaps we should have an initial question that asks "are
     you implementing Internet applications, intranet appls, or both?"

     *Internet technology
     vs. Internet apps*

     Does marketing mean "advertising?"   *Mktg & Advertising*   *Yes*

     I assume all customers get read the general business areas, then
     we segue into the industry specific sections if applicable?   *Yes*

     Merchandising under distribution industry does not communicate
     very well. What does this mean, since "sales" is already under
     general business.   *— From IBM list*

     Customer service should be under distribution. Or is it
     generic enough to go under the general business areas at top?
     Would also apply to insurance and perhaps manufacturing for
     sure.

Q.2.1 Remove "increase revenue" in favor of "reach new customers"
     "Increase revenue" sounds too high level and like something
     everyone will want.   *Yes*

     Add "Offer new products or services" and "Sell more of
     current products to current customers"   *Yes*

     What about "get products or services to market faster?" That   *Is different
     is different than "reduce order-to-delivery time.   conceptual*

Q.2.2 This is not an "importance rating." It is a "degree of
     inhibitor" rating.

     Need to add some political inhibitors like "executive(s)
     not familiar with Internet/Intranet technology" and
     "executives not convinced of Internet/Intranet value or
     payback." Alternately, could say "political reasons."   *Key decision makers.*

     Lack of appropriate development tools

     Could probably just say "security" as one choice if we are
     sure to capture comments.

Q3.   Good

Q4.. "Full" rather than "live?" Or "full production" rather than
"live implementation?"

Add "by your company" to Internet Purchasing

I'm still concerned, even with the change in the line above, that
"Internet sales by your company" will get confused with "Internet
purchasing by your company." Perhaps we could say "Internet
sales" first. Alternately, we could say "Internet sales to
customers of your company."

Add "customer support or self help?"

Q5 Bottom table could have more than one in each category

Middle column should read "Used for Internet/Intranet" so
the contrast with the last column is clear.

How about "Internet/Intranet server software?"

Would like to capture "pc" or "network computer" as to
what is the desktop.

Q6.1 Seems repetitive with Q3. Perhaps we would be better served
getting the business driver in Q3 and the technology and
applications decision makers here.

Q6.2 Question text should clearly read "..for Internet or Intranet
applications"

Add "Skills availability"

What about "Ability to handle high transaction volume?"

I would rather do the importance rating as a separate question
different from rating S/390 capability. Thus, I think
we should phrase 6.2 as "importance in selecting a server
platform for Internet or Intranet applications." Then
we should ask about whether S/390 was considered. Then,
finally, we should ask about the S/390 ratings against the
criteria.

Change "low cost of deployment" to "Price of initial deployment"
and add "Ongoing costs of operation" No need to qualify
either of these with "low." No other criteria is qualified.

What about "time to deploy" and "scalability, or ability to
upgrade," "vendor reputation?"

Q7. Another approach to this might be to ask this question in the
context of the generic requirements style of 6.2. That is, to
ask to what degree these additional items are required of
any Internet/Intranet package. Linking them to S/390 may
distort whether or not an S/390 with these elements would
actually be competitive, even if provided.

I don't think we are learning enough about the potential
differentiators for S/390. But let's talk about this. I
think we are ok against the other two objectives.

Ideas w/ Intent rg? [handwritten]

S/390 Internet Questionnaire Draft

If N/N then terminate [handwritten]

1. In which business areas is Internet technology being(or planned to be) implemented?

Is Internet technology used in any of the following business or application areas, or are there plans for its use within the next 6 months?

[The following business areas are split in general and then industry specific sections]

Business Application Areas	Currently used (Y/N)	Will be used within 6 months (Y/N)
General Business Areas		
Accounting & Finance		
Sales		
Advertising and Marketing		
Accounts Payable		
Human Resources/Payroll		
Communicating (e.g. Email and groupware) Other		
Distribution Industry		
Store Operations		
Distribution Services		
~~Merchandising~~		
Supply Chain Managemene		
Other		
Health Care		
Clinical Information		
Care Delivery Applications		
Information Infrastructure		
Other		
Insurance		
Claims Processing		
Agency/Distribution Systems		
Managed Care		
Other		
Manufacturing		
Production Planning		
Manufacuring and Production Operations		
Distribution		
Banking & finance. Other		
Telecommunications		
Network Services		
Directory Services		
Customer Services/Billing		
Other		

[If no plans for implementation within 6 months then terminate interview.]
Comments

2. Internet Implementation Drivers and Inhibitors

2.1 Internet Drivers

Please rate, on a scale of 1-5 (1=low and 5=high), the importance of each of the following objectives when implementing internet technology. If you are already using Internet technology, would you also rate your level of satisfaction with achieving these objectives.

Decrease/Increase speed of introduction of new products

Objective	Importance Rating (1-5)	Satisfaction Rating (1-5)	Comments
Keep up with latest technology			
Reduce costs of operation *Increase fulfillment speed*			
Reduce order-to-delivery time *Before-at-time*			
Increase revenue			
Increase ability to manage business			
Other *Improve Customer Service*			
Other *offer larger lines of products*			

Please comment on areas of low satisfaction (i.e. rated as 1 or 2).

2.2 Internet Inhibitors

Please rate , on a scale of 1-5 (1=low and 5=high) the impact of each of the following potential inhibitors to planning and implementation of Internet technology.

Inhibitors	Impact ~~Importance~~ Rating (1-5)	Comments
Security within the company		
Security between company and outside world		
Network unable to handle increased traffic		
Lack of appropriate development skills		
Lack of internet application development tools		
System not continuously available		
Lack of internet application packages		
Other		
Other		

What is the most important criteria in your decision of **when** to start using Internet technology for business applications?

3. Who is initiating the use of the Internet and who is responsible for the implementation?

Who is the internet champion in your company? Who has responsibility for planning and implementing the Internet strategy? Check (√) the position with main responsibility for each of the columns. *Move to 6.1*

Position	Internet Champion	Technology Selection	Application Implementation
CEO			
CIO			
IS Manager			
Network Manager			

Business Function Personnel
    Function:
    Position:			

Other			
Other			

Comment

4. Status of Use of Internet/Intranet Applications

For each of the following categories of Internet/Intranet applications, please indicate your companies progress towards live implementation with a checkmark (√) in the appropriate box

Type of Application	No Current Activity	Considering Internet Use	Developing Software	Pilot Implemented (s)	~~Live~~ *Full* Implementation
Communication (e.g e-mail, group-ware)					
Web Presence/Marketing (e.g. display of product information on a web site)					
Internal business applications (e.g. HR, accounting, planning)					
Internet Purchasing (including EDI on Internet) *by your company.*					
Internet Payments by your company					
Internet Sales by your company *to your customers.*					
Other *Customer Support*					
Other *Automated*					

Comments on status of use of Internet technology

5. IT Infrastructure

What is the IT architecture being used to support these new applications?

Please describe the mix of hardware and software that you are using to implement these Internet applications.
Comment on the differences in hardware/software combinations at each level (e.g. data center, enterprise server,
departmental server, desktop.

Level 1 _(Data Center)_

Level 2 _(Enterprise or Departmental Server)_

Level 3 _(Desktop)_ (indicate such as PC or NCs)

Which of the hardware and software platform components are used for Internet applications and which were
purchased specifically for use with the Internet? Please answer Yes (Y) or No (N) as appropriate

×2

Platform Components	Used for applications	Purchased specifically for Internet/Intranet
Hardware:		
Manufacturer (_____)		
Model (_____)		
Operating System		
Type (_____)		
Version (if applicable) (_____)		
Systems Management Tools		
Name (_____)		
Version (_____)		
Application Software Products		
Name (_____)		
Version (_____)		
Other		
Other		

Comments on technology used for the Internet

Internet / Intranet Server S/W

6. Product Selection

6.1 Decision makers

Please rate the degree of influence of the following people in the selection of the hardware and software for Internet applications. The rating should be on a scale of 1 to 5 where 1= not involved and 5 = key decision maker.

Position	Rating of selection role	Comments regarding role or influence
CEO		
CIO		
IS Manager		
Programmer		
Network Manager		
Business Function Personnel Function: Position:		
Other		
Other		

6.2 Criteria for Selection

for Intranet → Internet

Please rate each of the following hardware and software selection criteria on a scale of 1-5 (1= not important and 5 = very important). Also rate the ability of S/390 systems to satisfy these criteria (where 1=very poor and 5 = excellent)

Selection Criteria	Rating of importance	Rating of S/390 capability
Continuous Availability		
Speed of transaction response		
Ability to ~~handle varying workloads~~ *scale...*		
Security		
~~low~~ cost of deployment		
Ability to integrate with existing applications and data		
Other important criteria (_____)		
Other important criteria (_____)		

Skill availability

Comment:

Initial cost of deployment.
Ongoing cost of operation

6.3 Using an S/390

Scalability/Ability to grow
time of deployment
Vendor reputation

Separate availability
for 7.

Did (or would) you consider the S/390 as a platform for Internet/Internet applications and did (or would) you select it? Please answer Yes or No

	Yes / No	Reason for your choice
Did/would consider a S/390 platfrom?		
Did (or would) select a S/390 platform?		

Additional Comments: *what advantages*

7. S/390 Internet Packaging

Assuming you were to consider a package of S/390 hardware, software and services as a platform for Internet and/or Intranet applications, then would you require to be included in the package? Please rate the importance of each of the following as elements of a S/390 Internet/Intranet package. Rate each of the elements on a scale of 1 to 5 where 1=not required and 5=essential.

Proposed Package Element	Rating of importance	Comments
Increased processing capacity		
Increased DASD capacity		
Introduction of IBM Network Computers (NCs)		
Networking Hardware (e.g. Routers and Switches)		
Connection to an Internet Service Provider		
Services to install and enable the new systems software		
Services to design Web pags and structure		
Services to provide links to existing applications and data		
Services to define security requirements		
Services to implement security requirements		
Other (_____)		
Other (_____)		

Additional Comments

Fax Cover Sheet

To: _WILSON HADDON_

    _415 · 961 · 3966_

From: Ronald C. Dombroski

        Consulting Market Analyst

        IBM System 390 Division

        522 South Road   (P124)

        Poughkeepsie, NY 12601-5400

Phone: (914) 433-3091

Fax: (914) 432-9418   _(completed)_

Subject: _IBM To 'Do's (partially_
complete - sent to keep things
moving)

2 suggested questions/ topics

No. of Pages: _3_

(including cover sheet)

Notes: _1) SNA vs TCP/IP - which protocol_
Stack is more important for Intranet applications?

2) Does Scale of NC implementation
force a different platform choice?

IBM S/390 Division

From: BLAKEM --NHBVM8   Date and time   ⁙/05/97 23:12:08
To: VRABLIK --PKEDVM9 Rob Vrablik
cc: RONCD   --PKEDVM9 Ron Dombroski

*** Resending note of 05/21/97 11:28
From: Mike Blake - NHBVM8,BLAKEM 31-4914 (44-(0)1256-344914)
S/390 Network Computing Market Development Leader
SUBJECT: To-Do: Urgent
Rob/Ron,
My input inserted at the end where the question was asked.

Q? Are we asking them what their current web server is etc. ?
Mike

To: RONCD   --PKEDVM9
cc: BLAKEM   --NHBVM8

*** Resending note of 05/20/97 11:28
Robert J. Vrablik
522 South Road, Mail Drop P124
Poughkeepsie, New York 12601-5400
Subject: To-Do: Urgent

From: Ron Dombroski
      Consulting Market Specialist
      IBM System/390 Division

At Thursday's kick-off of the drill-down interviews in network computing,
Input requested three things for which I need your response. We have
been asked to provide a hypothesized set of answers to the following
three issues which will be tested with customers. The purpose of the
hypothesis is to ensure we prepare interviewers for these items and to
facilitate recording answers. This does not close off other customer
answers or have any bearing on the study results. Please take a crack at
providing me with the three lists requested below by Thursday. Thanks.

ISSUE: "What are the hardware, software, and services selection criteria
         being used for the Internet and Intranet projects?
         -IBM to provide list of possible criteria

! This is what our customers think the least about at this point. We are
! raising this issue each time we engage our customers in a discussion.
! The criteria has to be grounded in business issues first. The major
! theme of the business issue is "quality of service" and it is based on
! the first principle that the Web is always open to use as a channel
! to reach a business or institution. When a business or institution
! decides to offer its customers the Web a channel to conduct a
! business transaction it is extending a very big promise to their
! customers that "you can count on my Web site to be there on demand
! when you need us". This translates into the criteria for continuous
! availability and good response time. Behind this the criteria calls for
! just in time capacity (scalability) and the highest levels of security
! for the customer privacy of the client and the protection of the
! business's or institution's electronic assets. In addition, criteria
! for deployment must be accomplished at lowest incremental cost.
! Especially when access to existing data and applications come into
! the solution model which 99% of the time it will.
! This includes all administrative (soft costs) and hardware/software
! investments.
! Generally Web initiatives do not start in the data center when
! these disciplines are better understood. Web initiatives generally
! start elsewhere (e.g. Marketing) where I/T skills to run mission

! when deployment begins. It's only after the project has progressed
! and investments made do these issues surface. Addition capital is
! invested to "fix" the issues.
! It is imperative that data center management intercept these projects
! early enough to document this criteria and then demonstrate a
! one for one correlation to satisfying the criteria in deployment. We
! believe that S/390 will satisfy the criteria above all other
! alternatives. The alternatives are:
! - creating the Web site on a Wintel/Risc platform
! - duplicating data and moving it to that site
! - linking this site to the "enterprise server" to access data
! - recreating applications to mimic what existing applications on the
!   "enterprise server" already perform on the alternative Web site
! - acquiring the alternative hardware and software to meet the criteria
! - recreate administrative procedures to manage the alternative Web
!   site
! - staff the Web site

ISSUE: "What were the factors for and against S/390?"
        -IBM to provide list of possible factors
!
! Factors For ----> see the discussion above
! Factor Against:
! - the fear of putting the Web site on the "enterprise server" for
!   security reasons
! - political. Organizations outside the data center want to be the
!   control point
! - businesses and institutions just are not aware off the Web
!   capabilities of the S/390
! - IBM Sales and Services and Industry Solution Units don't market
!   S/390 Web capabilities
! - S/390 is only used for access to legacy application and data access
!   not for new applications

NEW since prior fax

ISSUE: "What additional features and functions would customers like to
        be offered in an Internet/Intranet packaged solution?"
        -IBM to provide list of possible features and functions
! Mike Blake - Market Development team leader is the best person to
! answer this question NHBVM&(BLAKEM)

        Should this solution include:- (multiple choices)
Increased processing capacity (upgrade or new footprint)
Increased DASD capacity
IBM Network Stations (Network Comuters)
Additional networking hardware (switches and routers)
Connection to an Internet Service Provider
Services to install and enable the required new system S/W
Services to design Web pages and structure
Services to link provide links to existing applications and data
Services to define security requirements
Services to implement security requirements

Need additional customer input to strengthen this list.

Ronald C. Dombroski
914-433-3091 (t/l 293) PKEDVM9/RONCD
MD P124 IBM Poughkeepsie
522 South Rd, Poughkeepsie, NY 12601-5400

Fax Cover Sheet

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_415 · 961 · 3966_

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Consulting Market Analyst

IBM System 390 Division

522 South Road   (P124)

Poughkeepsie, NY 12601-5400

Phone: (914) 433-3091

Fax: (914) 432-9418

Subject: _IBM To 'Do's (Partially_
complete - sent to keep things
moving)

No. of Pages: _3_

(including cover sheet)

Notes: _____

_____

_____

IBM S/390 Division

From: VRABLIK --PKEDVM9   Date and time   05/21/97 11:28:05
To: RONCD   --PKEDVM9
cc: BLAKEM --NHBVM8

*** Resending note of 05/20/97 11:28
Robert J. Vrablik
522 South Road, Mail Drop P124
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! critical operations are lean if not present at all. As a result these
! criteria are least understood and are not linked to platform choice
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! and investments made do these issues surface. Addition capital is
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Ronald C. Dombroski
914-433-3091 (t/l 293) PKEDVM9/RONCD
MD P124 IBM Poughkeepsie
522 South Rd, Poughkeepsie, NY 12601-5400

Fax Cover Sheet

To: **WILSON HADDON**

415 · 961 · 3966

From: Ronald C. Dombroski

Consulting Market Analyst

IBM System 390 Division

522 South Road   (P124)

Poughkeepsie, NY 12601-5400

Phone: (914) 433-3091

Fax: (914) 432-9418

Subject: **Per our Phone conversation of 3/7.**

No. of Pages: **2**

(including cover sheet)

Notes: _____

_____

_____

_____

IBM S/390 Division

Mar 06 draft of Discussion Guide for Drill-Down Research
into Network Computing and Server Platform Needs

Scope:
50 to 100 telephone interviews providing a qualitative summary

Objectives:

To Develop an Initial Understanding of:
1) Customers' Progress toward Internet/Intranet Applications
2) The key drivers behind the platform infrastructure
   choices for Internet/Intranet applications
3) Inhibitors, critical success factors, and potential differentiators
   in the implementation of S/390 platforms supporting
   Internet/Intranet applications

Discussion Topics:

- What business activities are supported and what type of applications
  are customers implementing on either the Internet or an Intranet?
- What are the business drivers and goals behind these initiatives?
- Which department of function is driving the applications?
- What is the basic IT architecture (e.g. 2-tier, 3-tier) for these?
- What are the major criteria they are using in the selection of
  hardware and software infrastructure to support the Internet/Intranet?
- Who is making the decision on platform?
- What platform types were considered? Which was selected? Why?
- What appear to be the undermet needs?
- If implementation on S/390 was not considered, why was it not
  considered?
- What would it take for a S/390 to be considered for such an
  implementation?
- What is the interest/opportunity for a hardware/software/services
  packaged S/390 web server solution? What are the key requirements?
- What is the planned evolution of the infrastructure? How might
  it change? How fast will it grow?

$100 @ 100 = 10, 1K.$

$Spec/Quali = 4 \quad (2 @ 2K)$

$Analysis = 8 \quad (4 @ 2K)$

$Report = 16 \quad (8 @ 2K)$

$Presentation = 2K$

$Wrap Up = 2K$

$\underline{45K}$

Mailing/Travel

Ron DOMBROSKI — Team header Market Research
                         390 Division Marketing

Phone - 914 - 433 - 3091
Fax   - 914 - 432 - 9418

Wants a research project ~~that~~ will identify the following:

① Drivers and criteria behind platform choices for Internet/Intranet
   applications

② Inhibitors and drivers for 390 range

③ Level of customer progress towards use of 390 for
   internet/intranet and for status for other platforms e.g. are
   smaller platforms being used for pilot or small apps.
They know 390 customers and prospects.

Looking for 50-100 in depth interviews — not just plain questions
answered

They are deliberately looking to use new research companies for
this. They got our name from John Fisher group. They are
asking 2 companies to bid.

Target budget - $50K

Timscale - 2Q 97

Want proposal which identifies demonstrable expertise in
this area within 2 weeks.

I offered to send copy of Internet Integration questionnaire
by fax.

INPUT®

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FAX TRANSMITTAL FORM

Date:	March 21, 1997	**Confidential:**	Y/N
To: (Name)	Ron Dombroski	**Urgent:**	Y/N
Tel/Location:	914-433-3091	Page: 1 of 8	
Company:	IBM System 390 Division		
Fax Number:	914-432-9418		
From:	Wilson Haddow		
	wh@input.com		
Subject:	Proposal for S/390 Research Project		

Dear Ron,

Attached is INPUT's proposal for analysis of S/390 platform for Internet/Intranet applications.

We at INPUT believe we can add a great deal of value to this project because of:

* Our experience and knowledge concerning the Intranet and Internet market

* Our experience in having worked with IBM on similar projects in the US.

I look forward to discussing this with you and so please call me if you have any questions or require additional information.

Sincerely,

Wilson Haddow
Vice President

Attachment

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Proposal for Analysis of S/390 Platform for Internet/Intranet Applications

Objectives

To develop an initial understanding of:

- S/390 customers' progress towards implementing Internet and Intranet applications
- The key drivers behind the hardware and software infrastructure choices for Internet and Intranet applications
- Inhibitors, critical success factors and differentiators in the implementation of S/390 platforms supporting Internet technology

Benefits to IBM

- Gain improved understanding of S/390 customer usage of Internet technology
- Understand S/390 customer plans for platforms to support Internet technology
- Ensure an effective investment strategy for S/390 related to Internet and Intranet applications
- Evaluate customer satisfaction with current Internet application platforms
- Establish a profile of prospects for S/390 Internet platforms

Issues Addressed

INPUT will make best efforts to address the following issues related to the usage of S/390 as a platform for Internet and Intranet applications:

- What business processes, function and applications are being migrated to Internet technology?
- What are the business objectives driving these changes? How satisfied are users that these objectives being achieved?
- Who is initiating the changes and who is responsible for the implementation?
- What is the IT architecture being implemented to support these new applications?
- What are the hardware, software and services selection criteria being used for the Internet and Intranet projects? Who is involved in the selection process?
- What hardware and software platforms were considered and selected? What were the factors for and against the S/390?
- What customer needs remain unmet?
- What is the potential for a packaged solution including S/390 hardware, software and services? What must be included in such a package in order for it to be considered as a platform for Internet

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and/or Intranet applications? What additional features and functions would users like to be offered in such a package?

- What are users' plans for the future of the Internet/Intranet IT infrastructure?

Scope and Methodology of the Project

Project Scope

The project focuses on the existing S/390 customer base.

50 -

Up to 100 customers will be interviewed regarding their experience and plans for migration to Internet technology. The interviewees will also include customers who do not yet use Intranets or the Internet for business applications.

Comprehensive telephone interviews will be held with IS executives who are responsible for planning and selection of Internet-related hardware and software platforms, These interviews would consist of quantitative and qualitative questions.

Methodology   *Experienced Interviews, Specially Trained in This Environment*

The methodology that INPUT proposes using for this project is as follows:

1. Create a draft survey questionnaire.
2. Meet with IBM to review the questionnaire and to receive a briefing from IBM on the S/390 product family and market
3. INPUT will train the interviewers on those aspects of the S/390 market relevant to the Internet/Intranet market.
4. Conduct survey using names and contact information supplied by IBM
5. Tabulate and analyze the data tabulation
6. Prepare draft results and present to IBM
7. Prepare final report for delivery to IBM

Research Schedule

INPUT will complete the study within two months of the contract being signed.

At the end of week 1 of the study, INPUT will meet with IBM to review the proposed questionnaire and receive the S/390 briefing.

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Qualifications

INPUT is highly qualified to conduct this work, having performed similar assignments for IBM and many other leading firms in the industry. An summary of some of the projects and a client case study are attached to illustrate examples of some of INPUT's experience.

This project will be led by Wilson Haddow, an INPUT Vice President, and the interview process will be managed by Joanne Ponnwitz. Biographies for Wilson and Joanne are attached. Other staff will be assigned to the project as required.

Fees

INPUT's professional fee for this project is $46,000 (excluding applicable taxes).

One half of this fee is payable on contract authorization and the remained on delivery of the final report.

Out-of-pocket expenses (primarily travel and report production) will be billed at the end of the project and are not expected to exceed 10% of the total professional fee.

This proposal will remain valid for thirty days, unless extended in writing.

Contract Authorization

To authorize the project as specified, please sign and return one copy of this proposal. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to IBM and an invoice for 50% of the professional fee will be sent. Payment should be made on receipt of this invoice. The remaining 50% plus out-of-pocket expenses will be invoiced and payable on submission of the final report.

AUTHORIZED BY IBM:

ACCEPTED BY:
INPUT

_____

_____

Name

Name

_____

_____

Title

Title

_____

_____

Date

Date

MARKET ANALYSES:

- Conducted customer satisfaction studies across multiple product lines for one of the largest producers of systems software.

- Assessed the acceptability of UNIX as a platform for a software company considering extending its products to new platforms.

- Studied the market position of the major suppliers to the real time operating system and tools market.

- Performed several studies on current and future networking software markets.

- Surveyed the needs, directions and platform ratings of ISVs for one of the largest manufacturers of specialized platforms.

- Reviewed the current and future competitive environment for a major DBMS supplier.

- Conducted primary research to assess the acceptability of using an object oriented software platform to produce maintainable/reusable code.

- Performed many studies in the CASE/applications development market (see separate listing).

- Have conducted many studies on market/product opportunities in many application software product segments. Through primary research identified needs, gaps, market size, growth, special opportunities, competitive environment, vendor strengths and weaknesses. Examples of segments studied:

  - Manufacturing/distribution (see separate listing)

  - Banking (see separate listing)

  - Insurance (see separate listing)

  - Federal government (see separate listing)

  - State/local government (see separate listing)

  - Financial planning and analysis software

  - Payroll/human resources

Planning and Implementing Client/Server Support Services

The Client

A worldwide supplier of IT products and services

Client Objectives

- To size the overall U.S. market for client/server-related support services
- To quantify size and growth rates by vertical market, customer size and need factors
- To identify the most-needed services – current and future
- To understand the client's market position versus current and future competition
- To assess the regional differences
- To understand the relationship between products and services
- To transition from test to large scale rollout of the offering

INPUT's Role

Over a three month period, INPUT:

- Assisted in focusing and defining the client's objectives
- Developed and conducted a primary research plan
- Analyzed the quantitative and qualitative results of the research
- Presented findings to client management
- Advised on rollout implications

Client Benefits

As a result of this engagement, the client received actionable information covering all the client's original objectives.

The study produced additional, important findings, such as

- The study showed how the client could shape the market's direction.
- The client took action to change its perceived strengths and weaknesses in this market.
- The study greatly increased the client's understanding of how an existing product relationship can support the delivery of services. Changes were made to the implementation plan as a result.

The information from this study was critical input for the client in making extensive modifications to its previous tactical implementation plan.

Wilson Haddow
Vice President

PROFILE

CAPABILITIES

- Twenty years of international experience in the computer industry, including 15 years in consulting and computer services.

- With INPUT, Mr. Haddow is currently responsible for INPUT's research in the commercial market and manages INPUT's Market Analysis Program. Mr. Haddow was previously responsible for research in the Systems Integration, Professional Services and Outsourcing Information Systems programs.

BACKGROUND

- Most recently, Director of Marketing for UNIX International, where he focused on marketing and the software and skills requirements for UNIX-based systems within Data Centers.

- He served at Unisys, in their European Headquarters as well as in the US in a variety of roles, including application software consultancy and support, Professional Services Program Management and UNIX product marketing.

- Wilson's qualifications also include working with a European software and services company on sales and support of general business application packages, and the creation of Office Automation division for a computer manufacturer.

EDUCATION

- B.Sc., Mathematics, Strathclyde University, Scotland

JOANNE E. PONNWITZ
ASSOCIATE CONSULTANT

PROFILE

CAPABILITIES

- Ten years experience in research project administration including questionnaire design, data collection and data tabulation.

- Highly concentrated skill with application specific software tools for data administration and statistical analysis and project/personnel performance tracking.

- Significant contributor to technical report creation including user case studies, vertical market reports, IS vendor profiles and vendor line of business profiles for acquisition searches.

- Highly effective and efficient interviewer of key decision makers on both technical and nontechnical topics in the information services industry. Key interviewer on 15 major proprietary projects involving over 1,000 detailed interviews since joining INPUT.

BACKGROUND

- Directed Market Research Library for major aftermarket manufacturer.

- Directed research programs in-house and with vendor consulting firms.

- Functioned as an analyst/liaison between user community and the MIS department of a major manufacturer.

EDUCATION

- B.S., Psychology/Social Sciences, Syracuse University.

- M.A., Accounting/Statistics, Fairleigh Dickinson University, in progress.

86. The following statements deal with general business strategy and operations goals. For each statement, please indicate the extent to which that goal will be an objective or strategy of _NAME 2_ over the next three years. Rate each statement using the 6-point scale shown below.

By the way, if you believe a particular item is not applicable to _NAME 2_, then you would rate the statement a "1", since it could not then be an objective of _NAME 2_.

Over the next three years...	Will Not Be an Objective or Strategy of _NAME 2_					Will Be One of the MOST CRITICAL Objectives or Strategies of _NAME 2_
Continually introduce new products and services	1	2	3	4	5	6
Redesign business functions	1	2	3	4	5	6
Provide timely monitoring of the performance of individual business functions	1	2	3	4	5	6
Provide truly superior products/service to our company's customers	1	2	3	4	5	6
Utilize long-range planning to make prudent day-to-day business decisions for the company	1	2	3	4	5	6
Increase the degree of cross-departmental interaction	1	2	3	4	5	6
Reduce the length of time it takes to bring new products/services to market	1	2	3	4	5	6
Increase the _amount_ of information available to company employees who need it	1	2	3	4	5	6
Grow the company through strategic acquisitions and mergers	1	2	3	4	5	6
Introduce automated procedures	1	2	3	4	5	6
Reduce the cost of managing our basic logistical processes (e.g., controlling inventory, managing supplies)	1	2	3	4	5	6
Use information technology as a strategic asset/competitive lever for the company	1	2	3	4	5	6

December 18, 1991

Over the next three years...	Will <u>Not</u> Be an Objective or Strategy of <u>NAME 2</u>					Will Be One of the MOST CRITICAL Objectives or Strategies of <u>NAME 2</u>
Improve the timeliness of information	1	2	3	4	5	6
Distribute decision-making responsibilities to lower levels	1	2	3	4	5	6
Reduce product/service production or manufacturing cycle time	1	2	3	4	5	6
Use low price to distinguish us from our competition	1	2	3	4	5	6
Improve the <u>accuracy</u> of information necessary for decision-making	1	2	3	4	5	6
Grow revenues as quickly as possible	1	2	3	4	5	6
Improve logistics of dealing with suppliers	1	2	3	4	5	6
Centralize company management decision-making	1	2	3	4	5	6
Reduce company operating costs	1	2	3	4	5	6
Improve our control over inventory and supply management systems	1	2	3	4	5	6

(PLEASE TYPE THE NUMBER CORRESPONDING TO YOUR ANSWER)

December 18, 1991

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                         1997/1998 SEGMENTS
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SEGMENT		CONTENT	DESCRIPTORS
TECHNOLOGY ADVANTAGE- LARGE	5A1	HLU≥125 MIPS (swmg≥60,msu≥23) - 9672R3, R4, Rx - Skyline, Pilot, Millenium	Parallel sysplex capable Mostly multiple systems Newest, biggest systems
	5A2	H5, GX8xx4, 5995-xx70 with - LINKS or - R3, R4, Rx or - Skyline, Pilot, Millenium	Current software & techno. Large staff I/T critical to business Value high availability
BUSINESS CONSTRAINED	5	H5, GX8xx4, 5995-xx70 without - links or - R3, R4, Rx or - Skyline, Pilot, Millenium	Prior "leading edge" Often multiple systems Current software Value function, but
	5	9673, 9672E/P	justification difficult
	5	HLU≥125 MIPS - 9672R3, R4 but - Used & without links	Increased cost focus View I/T as an asset
TECHNOLOGY ADVANTAGE- MID SIZE	4A1	HLU≤124 MIPS (swmg≤50,msu≤22) - 9672R1, R2	Primarily single system Highest OS/390 content
	4A1	- Pilot, Millenium	Limited staff
	4A2	- 9672R3, R4, Rx	Like solution offerings
	4A3	- 2003	Leading edge image
STABLE GROWTH	4	H2 } new	Acquired NEW Moderate growth
	4,3	9121, 9221 } new	Fairly current software, but migration a concern Price sensitive
PRICE DRIVEN	2	H2 } used	IBM acquired USED Very cost conscious
	2	9121, 9221 } used	Little value on new function
	2	GX8xx2, GX6xxx, 5995-xx50	Fairly current software, but migration a concern
MATURE	1	H0, 3090, GX8xx0, EX, 5990/5	Old technology Back level software
	0	9370, 43xx, 308X, 5890, 580	Single system, small staff
	0	470V, XL, VL, AS	Low operating costs No value on new funct/techno

SEGMENT / LEGEND

1995-1996 SEGMENT	DESCRIPTORS	VALUES
TECHNOLOGY ADVANTAGE	New high-end sys (H5/9672E) Current software (9672R3/R4) Large Staff Multiple systems complex	New function & technology I/S as critical to business sucess High Availability
BUSINESS CONSTRAINED	H2 Prior "leading edge" Multiple systems Current software	Value function, but justification difficult Some value for vendor support Increased cost focus View I/S as an asset
AIR SOLUTION ORIENTED	New low-end technology (9121/9221/9672R1/9672R2/2003) Heavy VSE content, usually ESA Limited staff Single system	Vendor support Solution offerings Leading edge image
STABLE GROWTH	H0/J/S Moderate growth Fairly current software Mixed single/multiple systems Acquired new	Some value for technology Leading edge image Price sensitive S/W migration becomming significant
PRICE DRIVEN	H0/J/S Moderate growth Fairly current software Mixed single/multiple systems Acquired used	Very cost conscious Used acquisition Little value on new function
MATURE	Old, low-mip technology Back level software Single system Small staff	Low technology costs Low operating costs Place no value on new functions or technology

HLU SIZE / LEGEND

MIP RANGE	EXAMPLES: IBM	HDS	AMD
251 - 999	9672-E48,9021-9X2/982/972/962/952	GX8624	5995-8670
126 - 250	9672-R83,9021-900/942/941/860/820	GX8314	5995-4570
101 - 125	9672-R63,9021-720/822,3090-60J/50J	GX8212	5995-2570
76 - 100	9672-R52,9021-660,3090-40J,9121-732	GX8220	5995-2550
51 - 75	9672-R61,9021-500,3090-30J,9121-570	GX6425	5990-700
26 - 50	9672-R31,3090-30E/20J,9121-440,3084	GX6210	5990-500
11 - 25	9672-R11,3090-25S/18J,9121-260,3081	XL60	5890-19E
6 - 10	3090-12E/12J/10S,9221,4381	EX25	580-5840
1 - 5	4381,4361,4341,9370	EX11	

U.S. ESTAB DISTRIBUTION

01/01/96

SIZE	MATURE	PRICE	STABLE	AIR/SO	CONSTR	TECHNO	ESTABS
251-999					3	378	381
126-250					164	186	350
101-125		172	61	27	12	86	358
76-100	52	201	42	46	25	34	400
51-75	110	119	54	196		13	492
26-50	334	131	47	477	4	3	996
11-25	299	65	54	814			1232
6-10	875	4	8	539			1426
1-5	2404			543			2947
TOTAL	4074	692	266	2642	208	700	8582

SECTION D, ANNOUNCEMENT TRACKING

ASK EVERYONE:

D1a.   Have you heard of IBM's OS/390?

1	YES >	CONTINUE			
2	NO >	SKIP TO E1			
7	NOT APPLICABLE (DO NOT READ)		>	SKIP TO E1
8	DON'T KNOW (DO NOT READ)		>	SKIP TO E1
9	REFUSED (DO NOT READ)		>	SKIP TO E1

D1b.   Have you implemented IBM's OS/390?

1	YES >	SKIP TO D4a		
2	NO >	CONTINUE		
7	NOT APPLICABLE (DO NOT READ)		>	SKIP TO D4a
8	DON'T KNOW (DO NOT READ)		>	SKIP TO D4a
9	REFUSED (DO NOT READ)		>	SKIP TO D4a

D2.   Are you planning to implement OS/390?

1	YES >	CONTINUE		
2	NO >	SKIP TO E1		
7	NOT APPLICABLE (DO NOT READ)		>	SKIP TO E1
8	DON'T KNOW (DO NOT READ)		>	SKIP TO E1
9	REFUSED (DO NOT READ)		>	SKIP TO E1

D3.   When are you planning to implement OS/390? (READ LIST)

	1	During the first half of 1997
	2	During the second half of 1997
	3	In 1998
	4	After year 1998
(DO NOT READ)	7	NOT APPLICABLE
(DO NOT READ)	8	DON'T KNOW
(DO NOT READ)	9	REFUSED

D4a. Are you aware of the OS/390 Internet Bonus Pak? (IF NECESSARY, SAY: You may also know
this as the Internet Connection Server [ICS or ICSS] which is the OS/390's Web Server)

1	YES	-	**CONTINUE**	
2	NO	-	**SKIP TO E1**	
(DO NOT READ) 7	NOT APPLICABLE	-	**SKIP TO E1**	
(DO NOT READ) 8	DON'T KNOW	-	**SKIP TO E1**	
(DO NOT READ) 9	REFUSED	-	**SKIP TO E1**	

D4b. Are you using the OS/390 Internet Bonus Pak?

1	YES	>	SKIP TO D7a	
2	NO	>	CONTINUE	
7	NOT APPLICABLE (DO NOT READ)	>	SKIP TO E1	
8	DON'T KNOW (DO NOT READ)	>	SKIP TO E1	
9	REFUSED (DO NOT READ)	>	SKIP TO E1	

D5. Are you planning to use the OS/390 Bonus Pak?

1	YES	-	**CONTINUE**	
2	NO	-	**SKIP TO D7b**	
(DO NOT READ) 7	NOT APPLICABLE	-	**SKIP TO D7b**	
(DO NOT READ) 8	DON'T KNOW	-	**SKIP TO D7b**	
(DO NOT READ) 9	REFUSED	-	**SKIP TO D7b**	

D6. When are you planning to use the OS/390 Bonus Pak? (READ LIST)

1	During the first half of 1997
2	During the second half of 1997
3	In 1998
4	After year 1998
7	NOT APPLICABLE **(DO NOT READ)**
8	DON'T KNOW **(DO NOT READ)**
9	REFUSED **(DO NOT READ**

IF "YES" (1) ON D5, ASK D7a. OTHERWISE, SKIP TO INSTRUCTIONS ABOVE D7b.

D7a. Why are you using or are likely to use the OS/390 Bonus Pak? **(READ LIST) (ACCEPT MULTIPLE RESPONSES)**

1	Business data and/or applications are already on the S/390 or mainframe
2	Skills are availablefor the S/390
3	It was provided "free of charge"
4	Our network is already connected to the S/390
5	It allows me to take advantage of OS/390 capabilities, such as scalability, security, and reliability
6	Incremental implementation is less expensive on the S/390 than on a separate server
96	Some other reason (SPECIFY)_____
97	NOT APPLICABLE
98	DON'T KNOW
99	**REFUSED**

```
        SKIP TO E1
```

IF "NO" (2) ON D5, ASK D7b. OTHERWISE, SKIP TO E1.

D7b. Why are you not likely to use the OS/390 Bonus Pak? **(READ LIST) (ACCEPT MULTIPLE RESPONSES)**

1	Benefits are insufficient or unclear (IF NECESSARY, SAY: Key benefits are proximity to business data and applications, reduced points of failure, scalability/security/reliability, use ofexisting skills or resources)
2	Implementation costs are too high
3	Lack of skills
4	Our Internet/intranet server is on a different platform
5	Lack of services offerings for installation or implementation
6	Web server is controlled by another business unit or is outsourced
7	There are no plans to implement a Web server
96	Some other reason (specify)_____
97	NOT APPLICABLE
98	DON'T KNOW
99	REFUSED

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        CONTINUE WITH E1
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                     1997/1998 SEGMENTS
                     ------------------
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	5 5	9673, 9672E/P HLU≥125 MIPS - 9672R3, R4 but - Used & without links	Increased cost focus View I/T as an asset
TECHNOLOGY ADVANTAGE- MID SIZE	4A1 4A1 4A2 4A3	HLU≤124 MIPS (swmg≤50,msu≤22) - 9672R1, R2 - Pilot, Millenium - 9672R3, R4, Rx - 2003	Primarily single system Highest OS/390 content Limited staff Like solution offerings Leading edge image
STABLE GROWTH	4 4,3	H2 } new 9121, 9221 } new	Acquired NEW Moderate growth Fairly current software, but migration a concern Price sensitive
PRICE DRIVEN	2 2 2	H2 } used 9121, 9221 } used GX8xx2, GX6xxx, 5995-xx50	IBM acquired USED Very cost conscious Little value on new function Fairly current software, but migration a concern
MATURE	1 0 0	H0, 3090, GX8xx0, EX, 5990/5 9370, 43xx, 308X, 5890, 580 470V, XL, VL, AS	Old technology Back level software Single system, small staff Low operating costs No value on new funct/techno

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6 - 10	3090-12E/12J/10S,9221,4381	EX25	580-5840
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U.S. ESTAB DISTRIBUTION

01/01/96

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101 - 125	9672-R63,9021-720/822,3090-60J/50J	GX8212	5995-2570
76 - 100	9672-R52,9021-660,3090-40J,9121-732	GX8220	5995-2550
51 - 75	9672-R61,9021-500,3090-30J,9121-570	GX6425	5990-700
26 - 50	9672-R31,3090-30E/20J,9121-440,3084	GX6210	5990-500
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Fax Cover Sheet

To: _WILSON HADDON, JOANNE POMWITZ_

_415.961-3966 , 201-801-0441_

From: Ronald C. Dombroski

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Subject: _INTERVIEW STATUS AS OF 5/16_

    _____

No. of Pages: _____ _2_

    (including cover sheet)

Notes: ___ _FOR YOUR PLANNING PURPOSES_

    _____

    _____

IBM S/390 Division

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From: WOLFWJ  --PKEDVM9                Date and time     5/19/97 14:02:16
To: CARUSO  --PKEDVM9  Joe Caruso      EHOGARTY--PKEDVM9  Ed Hogarty
    HHALL   --PKEDVM9  Henry Hall III  JENNERI --NHBVM8   Ian Jenner
    KATHYK  --PKEDVM9  Kathy Kulchock   KATHYM  --PKEDVM9  Kathy McGettrick
    ROGERW  --RHQVM09  Roger Warmbir    RONCD   --PKEDVM9  Ron Dombroski
Subject: LCIP US Base Wave (#7) - Status Update


From: Bill Wolf                        D/E47A, B/005-W331-5, MS/P124
      Market Research & Business Support IBM Corp   -   522 South Road
      System/390 Division              Poughkeepsie, NY  12601-5400


FYI.


Regards, Bill ....                                !!A/C: 914    !T/L
                    IBM Mail: USIB4LWR             !!Fax: 432-94181292
                    Internet: wolfwj@vnet.ibm.com!!Tel: 433-30871293
*** Forwarding note from USFB4YB4--IBMMAIL  05/19/97 11:40 ***
Date:    05/19/97, 16:40:49  GMT -- 05/19/97, 11:40:49  EST
From:    USFB4YB4 at IBMMAIL
To:      USIB4LWR at IBMMAIL
Subject: LCIP - Wave 7 update
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BILL,

BELOW IS A STATUS REPORT FOR LCIP-WAVE 7 INTERVIEWING AS OF DAY-END FRIDAY,
MAY 16th.

SEGMENT	PHONE COMPLETES	DISK-BY-MAIL REQUESTS	DISK-BY-MAIL COMPLETES	TOTAL COMPLETES	QUOTA
0	185	--	--	185	185
1	134	--	--	134	135
2	112	15	2	114	135
3	199	27	5	204	225
4	110	8	2	112	120
4A	140	24	3	143	300
5	55	5	2	57	120
5A	58	4	1	59	180
TOTAL	993	83	15	1008	1400

We shouldn't have any problems meeting our requirements in Segments 0 through
4. Segments 4A through 5A will present problems in completing the required
interviews. My mid-week, I will have a fair estimate of how many completes I
think we will end up with.

IF YOU HAVE ANY QUESTIONS, PLEASE GIVE ME A CALL.

Notes from meeting on 5/15/97 - This was the kick off meeting for the S390/Internet project.

IBM -   Ron Dombroski
        Kathy - Market Researcher
        Rob - 390 marketing
        Dana Brown - 390 Business Development
INPUT - Wilson Haddow
        Joanne Ponnwitz

Objective of meeting:
Ensure full understanding of the project and context of the project within IBM 390 group. To discuss and evaluate how the current "Wave " research project should be used to feed this project with contacts, company/site details and what potential exists for the findings in the wave research to be cross-tabulated with the INPUT findings.

Meeting discussion:
Started with Rob giving an abbreviated S390 product pitch. This was naturally highly biased.

They want to uncover who controls and influences choice of Internet-related technology decisions. Where is the initiative for Web activity coming from? Do business believe that the web is involved in mission-critical processes and applications? What do the customers believe is 'mission-critical"?

There are 40,000 S390s at approx. 30,000 sites. IBM segment the sites according to the power of the largest IBM (or HDS or Amdahl) machine installed. See attached profile listing. The largest sites (size 4A, 5 and 5A) are of most interest to IBM from our survey as they produce the most business but they account for only approx. 20% of the sites in the US.

The majority of large accounts have over 1000 employees.

They have a pictorial view as follows:

IBM S390 Market Segmentation - with percentage of Internet applications

	Enabled with a web server	Other platform Internet implementation	Virgins
Large - 80+% of revenue from 20% of base	5%	85%	5%
General Business	Not applicable		

I suggested that they should also include the size 2-4 sites as they are mostly older machines and therefore they have potential for new hardware sales - they also provide customer with opportunity to consider replacement of S390 with alternative platform.

Given the size of sample (100 interviews maximum) was agreed that analysis by industry is not practical. However, the primary verticals for the S390 are:

> Insurance
> Banking
> Travel
> State and Federal Government
> Health
> Telecommunications

I suggested they should identify if the need for web-based applications is being pushed by IBM or pulled by the users. This has a significant impact on the marketing messages that may be used and the sales approach taken.

IBM want to concentrate on existing base for now.

The marketing presentation concentrated on e-commerce - I said they need to look at Intranets as this was area of most expenditure today. They used the slide showing evolution from Access; Presence, Integration, Transaction. I explained that I have used similar slide but that I have modified it to show Access; Presence; Business Operation; Revenue Generation and that Integration is an activity that helps move from static information on web site (Presence) to transaction-based information.

I explained our view of e-business relating to customer-initiated transaction going right into the internal systems.

Mail List Change Order ☐ Update ☐ Correction ☐ Deletion ☐ Addition Serial Number_____

U.S. COMMERCIAL

1. TYPE ☐ Vendor ☐ User ☐ Investor / Financial ☐ Media / Press ☐ Other ☐ EDI Newsletter

2. LEVEL ☐ Executive ☐ Manager ☐ Analyst ☐ Acquisition ☐ International ☐ Other

3. INTERESTS ☐ C/S ☐ Computer Systems ☐ Networks ☐ EC ☐ Information Services —
☐ EIS / CIS / Multimedia ☐ Other
☐─ Software Products
☐ Industry _____
☐─ Professional Services, SI
☐─ Outsourcing, Processing, Network Services

U.S. FEDERAL ☐ MMAR ☐ FPAP ☐ FPAW ☐ FPFA ☐ Other

EUROPE ☐ CSPR ☐ MAAP ☐ MSSP ☐ MVPP ☐ BIPR ☐ OSPR ☐ U.S.A. ☐ Other

* No names will be added without a completed   Program Manager
change order and program manager approval.   Authorization _____

CONTACT REPORT   Company _____
Continuation

Name _____

(blank lined form)

M&S 310 R 6/94

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                            1997/1998 SEGMENTS
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SEGMENT		CONTENT	DESCRIPTORS
TECHNOLOGY ADVANTAGE- LARGE	5A1	HLU≥125 MIPS (swmg≥60,msu≥23) - 9672R3, R4, Rx - Skyline, Pilot, Millenium	Parallel sysplex capable Mostly multiple systems Newest, biggest systems
	5A2	H5, GX8xx4, 5995-xx70 with - LINKS or - R3, R4, Rx or - Skyline, Pilot, Millenium	Current software & techno. Large staff I/T critical to business Value high availability
BUSINESS CONSTRAINED	5	H5, GX8xx, 5995-xx70 without - links or - R3, R4, Rx or - Skyline, Pilot, Millenium	Prior "leading edge" Often multiple systems Current software Value function, but
	5 5	9673, 9672E/P HLU≥125 MIPS - 9672R3, R4 but - Used & without links	justification difficult Increased cost focus View I/T as an asset
TECHNOLOGY ADVANTAGE- MID SIZE	4A1 4A1 4A2 4A3	HLU≤124 MIPS (swmg≤50,msu≤22) - 9672R1, R2 - Pilot, Millenium - 9672R3, R4, Rx - 2003	Primarily single system Highest OS/390 content Limited staff Like solution offerings Leading edge image
STABLE GROWTH	4 4,3	H2 } new 9121, 9221 } new	Acquired NEW Moderate growth Fairly current software, but migration a concern Price sensitive
PRICE DRIVEN	2 2 2	H2 } used 9121, 9221 } used GX8xx2, GX6xxx, 5995-xx50	IBM acquired USED Very cost conscious Little value on new function Fairly current software, but migration a concern
MATURE	1 0 0	H0, 3090, GX8xx0, EX, 5990/5 9370, 43xx, 308X, 5890, 580 470V, XL, VL, AS	Old technology Back level software Single system, small staff Low operating costs No value on new funct/techno

SEGMENT / LEGEND

1995-1996 SEGMENT	DESCRIPTORS	VALUES
TECHNOLOGY ADVANTAGE	New high-end sys (H5/9672E) Current software (9672R3/R4) Large Staff Multiple systems complex	New function & technology I/S as critical to business sucess High Availability
BUSINESS CONSTRAINED	H2 Prior "leading edge" Multiple systems Current software	Value function, but justification difficult Some value for vendor support Increased cost focus View I/S as an asset
AIR SOLUTION ORIENTED	New low-end technology (9121/9221/9672R1/9672R2/2003) Heavy VSE content, usually ESA Limited staff Single system	Vendor support Solution offerings Leading edge image
STABLE GROWTH	HO/J/S Moderate growth Fairly current software Mixed single/multiple systems Acquired new	Some value for technology Leading edge image Price sensitive S/W migration becomming significant
PRICE DRIVEN	HO/J/S Moderate growth Fairly current software Mixed single/multiple systems Acquired used	Very cost conscious Used acquisition Little value on new function
MATURE	Old, low-mip technology Back level software Single system Small staff	Low technology costs Low operating costs Place no value on new functions or technology

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Subject: _____

_____

No. of Pages: _____

(including cover sheet)

Notes: _Responses to questions_
C1 to C4C would serve as
our primary screening criteria.
Responses from prior "wave" are graphed.

IBM S/390 Division

SECTION C, NEW INSIGHTS

ASK EVERYONE:

C1. Now, we're going to talk about the Internet and value added network providers, or VANs, such as AT&T Global Network Services, IBM Global Network / Advantis, etc.

For each of the following activities, please tell me whether this is something your location currently does, plans to do in the next six months, plans to do sometime after the next six months, or has no plans at all to do this. **(DO NOT RANDOMIZE LIST. ASK FOR EACH.)**

1	CURRENTLY DOES
2	PLANS TO DO THIS WITHIN THE NEXT SIX MONTHS
3	PLANS TO DO THIS SOMETIME AFTER THE NEXT SIX MONTHS
4	HAS NO PLANS AT ALL TO DO THIS
7	NOT APPLICABLE / NOT RESPONSIBLE FOR THESE ACTIVITIES
8	DON'T KNOW (DO NOT READ)
9	REFUSED (DO NOT READ)

a. Access the Internet to search for electronic content to support business operations **(IF "NOT APPLICABLE / NOT RESPONSIBLE," SKIP TO C7.)**

b. Connect to the Internet to post a "home page" on a World Wide Web server

c. Use the Internet or a VAN to exchange data with business partners

d. Use the Internet or VAN to access a network enabled application in support of your business. **(IF NECESSARY, SAY:** An application delivered via a network, typically by subscriptions, for package tracking, travel reservations or similar activities)

e. Deploy a network enabled application for your customers to use that is accessible via the Internet or a VAN such as customer service or order entry

f. Implement an "Intranet" or internal network, which uses Internet technology that is accessible within your organization

g. Implement a formal strategy to leverage the Internet for your organization

ASK C2 AND C3 OF THOSE WITH 1-3 ON C1, ITEM "b."
ALL OTHERS SKIP TO INSTRUCTIONS ABOVE C4a.

C2.   What is the primary platform you are using or planning to use for your World Wide Web server?

      1   MAINFRAMES

      2   MIDRANGE OR MINI-COMPUTERS

      3   PCs OR PC-SERVERS

      4   UNIX OR RISC WORKSTATIONS/SERVERS

      6   OTHER (SPECIFY) :_____

      7   NOT APPLICABLE

      8   DON'T KNOW

      9   REFUSED

C3.   How important is it that your "home page" on your World Wide Web server have access to
mainframe data? For example, allowing customers to access order status or account balances.
Please use a scale of 1 to 5 where 1 is "not at all important" and 5 is "very important."

NOT AT ALL IMPORTANT			VERY IMPORTANT		NA	DK	REF
1	2	3	4	5	7	8	9

ASK C4a OF THOSE WITH 1-3 ON C1, ITEM "e".
ALL OTHERS SKIP TO INSTRUCTION ABOVE C4c.

C4a. You indicated that you have or are planning to deploy a network enabled application for your
customers to use that is accessible via the Internet or a VAN. What is the primary platform you are
using or planning to use for this network enabled application? **(PROBE FOR ONE RESPONSE)**

      1   MAINFRAMES

      2   MIDRANGE OR MINI-COMPUTERS

      3   PCs OR PC-SERVERS

      4   UNIX OR RISC WORKSTATIONS/SERVERS

      6   OTHER (SPECIFY) :_____

      7   NOT APPLICABLE

      8   DON'T KNOW

      9   REFUSED

C4b. How important is it that this network enabled application have access to mainframe data? For
example, customer service inquiries or order placement. Please use a scale of 1 to 5 where 1 is
"not at all important" and 5 is "very important."

NOT AT ALL IMPORTANT			VERY IMPORTANT		NA	DK	REF
1	2	3	4	5	7	8	9

ASK C4c OF THOSE WITH 1-3 ON C1, ITEM "f". ALL OTHERS SKIP TO C7.

C4c. You indicated that you have or are planning to implement an intranet. What is the primary platform
you are using or planning to use for your intranet server? **(PROBE FOR ONE RESPONSE)**

        1   MAINFRAMES

        2   MIDRANGE OR MINI-COMPUTERS

        3   PCs OR PC-SERVERS

        4   UNIX OR RISC WORKSTATIONS/SERVERS

        6   OTHER (SPECIFY) :_____

        7   NOT APPLICABLE

        8   DON'T KNOW

        9   REFUSED

C5 AND C6 OMITTED

ASK EVERYONE:
C7.   Let's go to the topic "The year 2000". Which of the following best describes where you (your
location) are in terms of preparing your mainframes to deal with the two digit date change in the year
2000? Would you say you have...? **(READ LIST. RECORD FIRST MENTION. IF
NECESSARY SAY; Where are you in terms of your overall effort?)**

        1   Decided on a course of action and have made significant progress (DO
                NOT READ: INCLUDING HAVE ALREADY COMPLETED ACTION.)

        2   Decided on a course of action and have made some progress

        3   Decided on a course of action, but have not yet taken steps to address the
                date change,

        4   Not yet decided on a course of action, or

        5   Have explored, but it is not an issue (DO NOT READ: SYSTEMS
                ALREADY SUPPORT IT)

        7   NOT APPLICABLE (DO NOT READ)
        8   DON'T KNOW (DO NOT READ)
        9   REFUSED (DO NOT READ)

IF "NOT AN ISSUE" (5 ON C7), SKIP TO Q.C10; OTHERWISE, CONTINUE WITH C7a.

Current/Planned Network Computing

S/390 Establishments

Both US and Europe Show Growth Plans For NC

Type of NC

	U.S.	EMEA

A. ...To search for electronic content to support business operations
- 76
- 74
- 72
- 65

B. ...To post a "home page" on a WWW server
- 80
- 75
- 71
- 55

C. ...To exchange data with business partners
- 72
- 70
- 66
- 54

D. ...Use NEA* in support of business
- 56
- 58
- 48
- 38

E. ...Deploy a NEA* for customer use.....
- 57
- 54
- 51
- 38

F. ...Implement an "intranet"
- 68
- 64
- 62
- 38

G. ...Implement a formal strategy to leverage the Internet.....
- 60
- 60
- 50
- 41

U.S. axis: 0 20 40 60 80 100   Percent

EMEA axis: 0 20 40 60 80 1   Percent
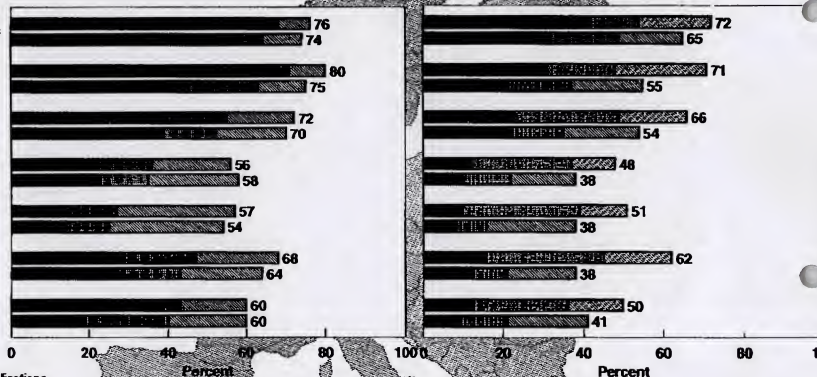
* NEA=Network Enabled Applications

Wave 6 (4Q96) ■ Currently ■ 6 Months Plan ▧ After 6 Months   ■ Currently ▨ 6 Months Plan ▧ After 6 Months
Wave 5 (2Q96) ■ Currently ▨ 6 Months Plan ▧ After 6 Months   ■ Currently ▥ 6 Months Plan ▧ After 6 Months

Q C1: For each of the following activities (A through G), please tell me whether this is something your location currently does, plans to do within the next six months, plans to do sometime after the next six months, or has no plans at all to do this.

Network Computing: Web Server

S/390 Establishments

PC Servers Most Popular Choice as Web Server

LCIP EMEA
Wave 6

Currently/Plan to Post Home Page

US — 78

EMEA — 72

0   20   40   60   80
Percent of Establishments
■ Current ▩ Plans

Choice of Web Server

U.S. - W6
53% 6% 6% 35%

U.S. - W5
44% 13% 6% 37%

Choice of Web Server

EMEA - W6
56% 9% 10% 25%

EMEA - W5
52% 12% 6% 30%

■ Mainframe ▩ Midrange/Mini ■ PC/PC Server ▩ UNIX/RISC

Q.C2: Current/Planned users: What is the primary platform you are using or planning to use for your WWW Server?

2/97   IBM Confidential   LCIPE62D.PRE-32

Network Computing: ES Data Access

S/390 Establishments

ES Data Access Important

Currently/Plan to Post Home Page

US — 78

EMEA — 72

0 20 40 60 80
Percent of Estabs.

■ Current ▨ Plans

WWW Server Access to Mainframe Data

U.S.-W6: 49
U.S.-W5: 45

■ Very Import. (5) ▨ Somewhat Import (3/4)

Of Estabs. Currently/Plan to Post Home Page......

WWW Server Access to Mainframe Data

EMEA-W6: 43
EMEA-W5: 46

■ Very Import. (5) ▨ Somewhat Import (3/4)

Q.C4: If you are posting or planning to post a "home page".... How important is it to have your WWW server have access to mainframe data?.....allowing customers to access order status e.g., or account balances. Use scale: 1(Not Important) - 5(Very Important)